Gab. Wd

THE USE OF SEA VOYAGES IN MEDICINE.

By EBENEZER GILCHRIST, M. D.

The SECOND EDITION,

WITH

A SUPPLEMENT,

Confirming the ſaid USE, with further Inſtances of its Succeſs.

LONDON,
Printed for A. MILLAR, and D. WILSON and T. DURHAM, in the *Strand*.
MDCCLVII.

6

MVSEVM
BRITAN
NICVM

PREFACE.

THE notion that living at ſea might be a proper remedy, was early embraced, on an occaſion that gave me ſome cauſe of concern. What at firſt was indulged at times, in great uncertainty, and often as an amuſement only, after more mature reflexion, obtained greater evidence, and became a matter of ſerious enquiry. The ſubject, from a ſlight view of it, does not promiſe much information, or appear of importance enough to merit a formal diſquiſition: but, duly conſidered in all circumſtances

and relations, it leads ſometimes into a diverting train of reaſoning, and ſuggeſts an agreeable variety of things, both in conjecture and experience, not altogether unworthy, it is hoped, of attention.

It was owing to ſomething of neceſſity and chance, more than choice, that theſe things were committed to writing. To know what in a ſcientific way could be ſaid on the head, thoſe to whom I communicated my ſentiments might expect and demand. But in conſequence of ſome trials made of it, I had every where, in all proper caſes, recommended ſailing, which few I found were diſpoſed to comply with. Every one could not diſcern the propriety of it as a remedy; ſome doubted of its being ſafe in the

the cure of diſeaſes, and indeed it ſeemed generally to be ſuſpected, becauſe uncommon. For theſe reaſons, and having ſearched into the opinion of authors concerning it, I thought I was in ſome ſort called upon to vindicate, in this manner, a practice I ſo much endeavoured to promote, by giving ſome inſtances of its ſucceſs, and ſhewing on what principles it is founded.

It is not pretended that what is here offered is in every part perfect, or perhaps in any. The whole is to be conſidered as an attempt to enlarge and explain a part of natural knowledge, which, with reſpect to medicine, has not been treated of either as a matter of curioſity or uſe. And to treat it in both views gives room,

purely as it may gratify the inquiſitive, to ſay ſome things ſome I am afraid will think unneceſſary, and others the truth of which future experience muſt aſcertain, or it may be will altogether diſprove. The general intention is mainly to be regarded.

The hiſtories I have given of cures by living at ſea, together with the authorities adduced in ſupport of it, and theſe the moſt reſpectable, are a ſufficient ground for farther experiment. All, I imagine, that has been ſaid on the ſubject, or may be ſaid with reaſon and probability, I have brought together; that, having every thing before him, the reader may be enabled to judge what place this unuſual remedy deſerves in medicine, and how far it is capable of being improved into a more certain method of

of practice. With me it has not, in it's good effects, fallen ſhort of thoſe expectations I was diſpoſed to entertain of it; and from it I have not, at any time, obſerved any bad effects.

For all the purpoſes of daily practice, we are provided with ample ſtore of familiar remedies, well ſuited to the ſeveral intentions of cure, in moſt caſes. But in higher caſes, and ſome particular diſeaſes, when the whole frame labours vehemently, or ſome part eminently is affected, how often is there wanted a remedy of higher and more appropriated virtues, without which nature in the unequal ſtruggle muſt ſink; and, art at a ſtand, the ſick are left to the uncertainty of a very remote chance for life, or abſolutely reſigned helpleſs, to

all the diſtreſs and deſpair of a melancholy impending fate. And to ſuccour nature effectually in her greateſt exigence, an unalterable adherence to the commonly received rules of ſyſtems, or a method, will not, I perſuade myſelf, be always inſiſted on.

The introduction of new remedies, or the revival of ſuch as are fallen into diſuſe, or have never much obtained, is always attended with difficulty; partly from the averſion that generally prevails againſt them; partly becauſe the ſkill or caution of the preſcriber will naturally be called in queſtion; or, which one would chuſe to avoid, he may fall under the imputation of ſingularity.

Medi-

Medicine, it is evident to me, has ſuffered no ſmall loſs, by the neglect ſo much of antient remedies; ſome of which, however dreaded by many or abhorred, I have obſerved to be altogether proper, and of ſingular benefit. A liberal uſe of wine in fevers, the bare mention of it, I remember, at a time, raiſed often great ſuſpicion and wonder. An early acquaintance however with its uſefulneſs, gave me an opportunity to deliver it as my opinion, that in all great caſes, wine, and chiefly wine, was to be depended on, while an uſeleſs heap of nauſeating remedies muſt be thrown aſide. This is not confined to fevers properly nervous; but extends, with due reſtriction, to all fevers of a low denomination, eruptive or otherwiſe; in which it has, in the habitual uſe of it, yielded me conſtant ſatisfaction.

An-

Another great reſource in fevers I judged bathing the whole body to be; and from reaſon urged it as worthy at leaſt of conſideration. Fear, and a falſe regard to reputation, long withheld me from making trial of it. Much might be ſaid upon it: I ſhall only at this time relate, in a ſhort appendix, the effects of it in a few inſtances, with remarks; in order to prompt others, and remove their prejudices who are apt to reject this kind of aſſiſtance, as troubleſome or indelicate, which is an objection of ſmall moment; or as dangerous, which I know it is not.

What reception this, another grand remedy of antiquity, which is the occaſion of the following treatiſe, will meet

meet with, I cannot at preſent conceive. How earneſt ſoever I may appear to ſet forth the advantages of it, in which I am not alone, and even though I have had a good many proofs of its fitneſs and efficacy, until greater obſervation confirm more its uſe, I ſhall not, as to a general uſe of it, be too confident. One thing, without fear of contradiction, I may venture to ſay; ſuppoſe ſailing, upon a ſober examination, admitted to make a part in the medical advices of this day, faſhion, I believe, will not ſoon declare on the ſide of it. It is a remedy for thoſe only who really ſtand in need of a remedy; in diſeaſes that too often are known to reſiſt the force of all remedies; and to comply with it to the utmoſt that ſometimes may be neceſſary, will require a degree of

reaſon

reaſon and fortitude, beyond what the ſmall feelings of ſlighter ills, or a mere modiſh affectation of being ill, can ever inſpire.

In the chapter of the right uſe of ſea voyages, I juſt make mention of remedies to be uſed in conjunction with living at ſea. It was intended once to have exhibited proceſſes in ſome diſeaſes. But how acceptable this would have been, as I can ſay nothing from trial, is uncertain; and better methods I ſhall not doubt may be known to others, or what is proper will readily occur. It ſeemed moreover to be beſide the purpoſe, the deſign being to ſhew what living at ſea will of itſelf do; and that it may be ſafely employed as a powerful adjunct at leaſt, if not ſolely ſufficient, in

in the cure of ſome very obſtinate, or for the moſt part mortal diſtempers. A conſumption I have had all along principally in view, and hints are every where ſcattered relating to it, which in many places make a conſiderable part of what is ſaid; and will not, I preſume, be reckoned foreign to the deſign, in treating of a remedy ſo much adapted to the cure of it. Nor will I ſo far circumſcribe myſelf as not to take notice of every thing that materially reſpects this.

CONTENTS.

Chap. I. OF *the conſtitution of air at ſea* Page 1.

II. *Of ſailing as an exerciſe, compared with other exerciſes* 11.

III. *Hiſtories of cures by living at ſea* 17.

IV. *Living at ſea a proper remedy, and how it operates* 47.

V. *Of the right uſe of ſea voyages* 62.

VI. *Objections* 75.

VII. *Sailing accommodated to the diſtempers of Great Britain* 85.

Appendix. 127.

THE USE of SEA VOYAGES IN MEDICINE.

CHAP. I.

Of the conſtitution of air at ſea.

THE powerful influence of air on animal bodies, as the univerſal means of life and health, and the cauſe of diſeaſes, daily obſervation ſhews; and medical hiſtories are full of it. No effect ſo great but may be expected from a fluid poſſeſſed of ſuch mighty properties, gravity and elaſticity, in conſtant motion, and continually preſſing us, and on all ſides. A fluid beſides endowed with many adven-

titious qualities, derived from heat, and cold, and moiſture, and the various corpuſcles of different natures mixed with it, and their effervеſences.

For from the whole terraqueous globe there are conſtantly ariſing in ſteams, more or leſs perceptible, innumerable particles of matter; being parts of all bodies that earth and water contain.

Theſe exhalations muſt therefore differ greatly, according to the ſoil, minerals, and other ſubſtances that abound in different places; and will affect the bodies of animals differently, according as theſe things are in their nature hurtful or ſalubrious. Hence the cauſe of healthful and unhealful ſituations is deduced; of endemial and popular diſtempers; as well as of ſingular diſeaſes happening from a particular ſituation, and hurtful to particular habits.

Accurate accounts have been given us of the conſtitution of air in general. The conſtitution of air at ſea particularly, has not, that I know, with a view to practice, been taken notice of, in all thoſe circumſtances which render it, I think, very different from that at land. A more exact knowledge of this

this is previouſly neceſſary to an enquiry into the uſes of living at ſea, as they reſpect medicine.

1. The vaſt extent of ſea, is to be conſidered, ſpread over one half at leaſt of this terraqueous globe, perhaps more. From this wide extended ſurface of water a great quantity of vapour is continually aſcending: much greater in proportion than from earth. In the Mediterranean only it is, according to computations, 5280 millions of tons in a ſummer day; and farther ſouth, where the evaporating cauſes are perhaps ſtronger, the quantity will be ſtill larger. But heat is not the ſole cauſe of evaporation; it goes on equally in extreme cold. That there might be a conſtant ſupply of vapour, every where, and at all times, for ſome great purpoſe in nature, fluids evaporate as much, and of the ſpirituous parts more, in froſt, or in freezing, than in warm weather. Sea air then is more humid.

2. Vapours from the ſea, or rivers, generate a much greater quantity of air than the exhalations at land: therefore it is that winds blow more frequently and variouſly at ſea, and with reſpect to land from the ſea.

Hence, in Britain, we have them two thirds of the year in ſome of the ſoutherly or weſterly points. The ſea being a greater ſource of air, we find the cauſe likewiſe, why ſtorms continue longer at ſea than at land.

3. Exhalations at land are from numberleſs different ſubſtances; and in a ſmall tract of country we ſhall find the air very different in qualities, and of a different temperature as to heat and cold. But air at ſea is not impregnated with ſuch various exhalations, the vapour being always of one kind, the ſubject from whence it is raiſed being uniformly and univerſally the ſame. This vapour likewiſe, exceeding greatly in quantity, will not be affected by the many and different exhalations at land, at any conſiderable diſtance at leaſt, or to any degree. Sea air, therefore, is more compact, becauſe more ſimple, and conſequently more elaſtic.

4. Air at ſea is better ventilated, or has in general a quicker and more conſtant progreſſion; becauſe there are no impediments to its courſe, as at land, by mountains, hills, foreſts. For this reaſon it is more agitated, and purer, in oppoſition to that foulneſs it contracts by ſtagnating. That there is a ſtagna-

ſtagnation more frequently at land, is evident from the clouds and hazineſs obſerved for the moſt part above land, and mountains, by which ſailors diſcover land at a great diſtance. The ſtagnation of air, even when not agitated by winds, is farther prevented by the many currents, and conſtant flux and reflux of the ſea. On account of the greater humidity then, and denſity, and quicker progreſſion of air at ſea, there muſt be an increaſed action of it. Winds therefore are here more violent, and have greater force, than at land; eſpecially as they are beſides often charged with much ſaline matter: For,

5. A great deal of ſea ſalt is raiſed in the ſpray, toſſed up thick by winds, and impelled: and in an atmoſphere filled with a ſtrong ſaline humidity, do ſea-faring people, often for weeks or months, live and breathe, and have their bodies therewith conſtantly almoſt wet.

6. Sea air is warmer. Thoſe at ſea ſeldom complain of cold, but are very ſenſible of a change when they come into foundings; much more for ſome days on their firſt living a-ſhore. Earth is a dead inert body,

and cannot, by the greateſt force of the ſun, be heated above a few feet deep, and is very ſoon cooled again. This great body, ſo cold in itſelf, muſt cauſe a colder atmoſphere, ſo far as this extends, and cool the ſea to a conſiderable diſtance. Sailors ſuſpect land by the coldneſs of the ſea, which ſtill increaſes the nearer land. Winds brought over great tracts of land, or where froſt and ſnow abound, are filled with rigid chilling parts. Hence it is that north and eaſt winds are ſo cold; while thoſe from the ſouth and weſt, where there is nothing but ſea, I ſpeak in reſpect of our own ſituation, are for the moſt part mild, and cheriſhing, and warm. Their greateſt heats, on the contrary, in thoſe parts of America, neareſt to us, are brought by eaſt winds, blowing over a vaſt ſpace of ſea. The ſea coaſts with us, even pretty far north, are rarely ſubject to hard froſts, or lying ſnows. In ſuch places they have more open ſeaſons, and early harveſts. Were not the ſea warmer, ſeafaring people could not, but with the greateſt hazard, bear to be ſo often wet with it *.

* Winds in ſome places have very oppoſite effects as to heating and cooling, for they are not always really

7. There

7. There is in the air at ſea a conſtant undulatory motion, correſponding to that of the ſea, whence a greater colliſion and con-

ſo according to our ſenſation of them. In the Eaſt Indies the land wind is cloſe, ſultry, and parching, ſo that there is no living abroad; and every body ſecures himſelf againſt it with ſhut doors and windows. But when the ſea wind blows, it is cool, refreſhing, and comfortable. This ſeems to contradict what is ſaid of winds above. There is another obſervation, however, not a little curious: the manner of cooling their wine, is to hang it up in a wet cloth, expoſed to the land wind, which, though felt hot, gives the liquor an agreeable coldneſs, and makes it fit to be drank with pleaſure. Expoſed to the ſea wind, in the ſame manner, it becomes diſagreeably warm. That air ſo hot to the ſenſe ſhould cool, and cool air heat, is a paradox; but admits of an eaſy ſolution. The ſcorching heat of the land-wind ariſes from its blowing over vaſt deſarts of burning ſands; or the atmoſphere, perhaps, being loaded with a variety of ſulphureous, aromatic, dry parts, exhaling from a great tract of land; potentially let us ſuppoſe hot. The ſea breeze is owing to air, raiſed ſtatedly freſh, and in greater quantity from the ſea, or ſome how put into motion; which joined to the moiſture, cauſes the coldneſs of it. But theſe different winds, notwithſtanding this contrariety of effects, retain ſtill their proper nature; that is, air at land is certainly cold, while at ſea it is, in the general conſtitution of it, warmer.

quaſſation of air; and an increaſed impetus of it in a percuſſive way.

8. That there is a true ſpecific difference betwixt air at ſea and air at land, will be more evident by endeavouring to diſcover the nature of ſea vapour. The notion is too limited, that the prodigious quantity of vapour raiſed, was intended only to ſupply this earth and atmoſphere with water, being vaſtly more than ſufficient for theſe uſes. If ſome other purpoſe is to be ſerved by it, it naturally occurs that it muſt contain ſomething elſe than water.

And that a portion of ſea ſalt may be raiſed in the vapour ſeems not improbable, all effluvia being, more or leſs, the formal ſubſtance of thoſe bodies from which they are raiſed. Nature has ſecret methods of raiſing and diſperſing ſalts through the univerſe; and wherever there is plenty of ſuch matter, and the means for working upon it, there theſe ſalts muſt be raiſed plentifully. Therefore at ſea, and in the regions where much rock ſalt is found, there muſt be at leaſt an equal quantity of effluvia from common ſalt, as from other the like ſubſtances, which in great abundance are diſcovered in the air.

Though

Though evaporation cauſed by heat, may not perhaps raiſe much foſſil ſalt, the winds ſkim off a fine pellicle, or lick up the ſurface of the water itſelf. The leſſer ſaltneſs of the ſurface water is attributed to the exhalation of the ſalt; which ſhews that, however fixed, by the common exhaling cauſes, which are able to operate upon bodies the moſt ponderous, it ſuffers a diſſipation.

But as more diſpoſed to be exhaled, and abounding in the ſea, the oils, bitumen, and ſulphur, will, in great quantity, be attracted too. This the ſmell of ſea water confirms, as all ſmell imports ſomething more than mere water, which is inodorous. Incorporated with air they are the cauſe of many appearances, the moſt conſiderable in nature. Theſe ſulphureous oils being in ſome degree viſcous, muſt involve ſome particles of ſalt, which will thus in the vapour be carried up likewiſe.

A great deal of bittern ſalt *, which is of a more volatile kind, is believed to be

* Bittern is the lixivium which remains after making common ſalt. It contains different ſalts, particularly much nitrous ſalt.

raiſed alſo at ſea; and, diſperſed in the atmoſphere becomes the parent of other ſalts. It is ſaid to enter largely into the compoſition of the nouriſhment of plants and animals. All nature is ſtored with ſalts: theſe muſt be derived from ſome grand ſource. Salt abounds moſt in the ſea; and they confine the uſes of it too much, who ſay that it is only to preſerve the waters of the ſea from corrupting, and to ſerve alimentary and mechanical purpoſes. One great deſign, it is reaſonable to think, of the immenſe vapour, is to take up, and fill conſtantly the air with a variety of ſaline corpuſcles, to anſwer one mighty intention of nature, the propagation of ſalts through the univerſe.

Even the notion of an analyſation at ſea has obtained, and that more or leſs of an acid ſpirit is conſtantly aſcending in the vapour: which the extreme corroſiveneſs of ſea air, in more ſoutherly climates, deſtroying very ſoon all metals and ſtony bodies, gives ground to conjecture.

CHAP.

CHAP. II.

Of ſailing as an exerciſe, compared with other exerciſes.

VARIOUS are the exerciſes that have been contrived, or adopted for the uſe of medicine. They may be diſtinguiſhed into thoſe that are performed by a voluntary muſcular action, and thoſe in which the body is paſſive. Of ſuch approved efficacy are all the gymnaſtic methods, that one or other of them becomes more or leſs, ſolely ſometimes, a cure in moſt diſeaſes. And that theſe might be rendered more certainly beneficial, they are now carefully appropriated to the particular diſtempers in which, from experience, they have been found uſeful.

Walking has been judged beſt for the purpoſes of nutrition, the diſtribution of the chyle, and plumping up the ſolids; and is the proper exerciſe of the ſtudious. It is ſaid moreover to be the fitteſt to preſerve health; while riding is thought to be of moſt uſe to reſtore health, and where it agrees, is a manly cheering exerciſe, and therefore is more

more eſpecially adapted to the low ſpirited and hypochondriacal. The particular condition of the gouty and corpulent, admits only of vehicles, or the exerciſe of the voice. The weak, hectic, and phthiſical, as they can bear no other, are directed to uſe the moſt gentle, ſuch as friction and geſtation.

Not only is the kind of exerciſe preſcribed in particular diſeaſes, but the neceſſary conditions, as they reſpect the time, the degree, and many other circumſtances, are with no leſs caution enjoined. Every kind and degree is not fit for every conſtitution, far leſs in every diſtemper they may be affected with, or at all times. In the choice of exerciſe, therefore, many things are to be attended to, in order to know which, in particular circumſtances of habit or diſtemper, is moſt proper and preferable.

Whether we conſider it in itſelf, or as accommodated to certain diſeaſes, in which it ſeems eminently a cure; there is no exerciſe, I have long thought, deſerves more our attention and enquiry than ſailing; not without wonder that, while other exerciſes have been improved into very extenſive uſe,

one,

one, having ſuch manifeſt advantages, ſhould be ſo little regarded, or ſo little recommended, in a nation eſpecially ſo much maritime as ours.

1. The firſt thing obſervable in ſailing is the ſickneſs. This does not ariſe from any offending matter in the ſtomach or inteſtines, but happens from mere conſent of nerves, affected in their origin, by the commotion of the parts within the head, from the unuſual motion.

2. One is carried very quickly, and often driven in the air, and frequently againſt adverſe winds, by which the preſſure and action of air is much increaſed.

3. The volutory and toſſing motion of the ſhip is a great addition to the exerciſe, as thereby one ſet or other of muſcles is conſtantly kept in action alternately, through the whole body, in order to preſerve the equilibrium.

4. The air ſuffering a conſtant undulatory motion, correſponding to the undulatory motion of the ſea, is an uncommon circumſtance, and makes a conſiderable exerciſe of itſelf. Beſides the ordinary gravity and preſſure of air, an increaſed action of it will be impreſſed

impreſſed on the body, from the manner of its application, in repeated ſhocks, ſometimes on one part, ſometimes on another, as if from an alternate bending and unbending of the air: ſo that while one part of the body ſuſtains a ſtrong preſſure, another ſuffers only an ordinary preſſure, or leſs; and ſometimes the body is ſqueezed betwixt contrary preſſures. We form ſome notion of this from the action of a fulling-mill.

Sailing ſeems to correſpond with moſt other exerciſes, in their manner or effects.

It reſembles walking, in the gentle, conſtant action of muſcles with which that exerciſe is accompanied. The benefit derived from riding depends on the continued ſuccuſſion one ſuffers, and being carried with conſiderable quickneſs in the air. Now there is a greater ſuccuſſion in ſailing from the vomiting; and, driven by winds, one is carried with greater quickneſs than in any ordinary exerciſe. At ſea, again, there is, from the ſhip's motion, a very various action of muſcles, and the body is put into all thoſe conſtrained attitudes which are obſerved in bowling, and the like exerciſes, and in common labour. Exerciſe in a ſwing, or in a coach, which

ſometimes

ſometimes cauſeth vomiting, come neareſt to ſailing; as does likewiſe our firſt exerciſe, the cradle.

Sailing, then, is a compound exerciſe, of geſtation, and that of a particular kind; a preternatural ſpaſmodic motion in vomiting; and a ſingular action of air; which advantages no other exerciſe can, in ſo many and uncommon circumſtances, lay claim to.

It is conſtant; for as the ſhip is in perpetual motion, day and night, ſleeping and waking, one or other of theſe exerciſes takes place, and the body is continually under the power of it; contrary to all other exerciſes, as commonly enjoined, in which the ſick are for a ſhort while only at a time employed, and the exerciſe has great intervals.

Though ſailing, conſidered in its complex circumſtances, and great effect, is reckoned among the higheſt exerciſes, ſo as in ſome to cauſe great perturbation, it is really, after being uſed to it, the moſt gentle, and excites no irregular motion, or undue impetus of the fluids. Therefore it is not attended with laſſitude, or loſs of ſpirits, as other exerciſes often are. Other exerciſes of efficacy cannot be

be undertaken by thoſe who are weak and waſted, in a fever, or ſtate of colliquation, and in many other caſes; and lower exerciſes are inſufficient for any great purpoſes of cure. But ſailing is of mighty energy, yet ſafe; and, except the ſickneſs at firſt, is eaſily ſuſtained. Scarce any circumſtance of a diſeaſe, in which it is proper, can forbid the uſe of it; while the frame of body, or mind, is not too much broken, or ſome part corrupted; even in this laſt it is ſometimes highly proper.

To all theſe, as farther advantages, we may add, that one is conſtantly breathing a peculiarly ſalutary air; the action of air is greater, and increaſed by being often carried in it with great velocity. There is likewiſe a greater action of muſcles, of all the muſcles of the body, of muſcles not exerciſed in other ordinary exerciſes, or not exerciſed in the ſame manner, nor ſo forcibly, nor with ſuch effects and continuance. Neither, in undertaking it, is there occaſion for ſo many precautions as are neceſſary to be obſerved in other exerciſes. A ſafe, eaſy, and effectual one ſeems, by the neglect of this, to have been wanting in medicine.

CHAP.

CHAP. III.

Hiſtories of cures by living at ſea.

HISTORY I.

Conſumption.

A Young gentleman, whoſe mother, and an elder brother, had both died of a conſumption, loſt his appetite wholly, his fleſh, and, which alarmed him moſt, his ſtrength in a great degree. He had a dry huſky cough, a fever with night ſweats, a meagre countenance, and a high hectic fluſh; in ſhort, ſeemed to be following faſt the fate of his brother; being altogether of the ſame delicate complexion, temper, and make, and near the ſame age. I judged it vain, and a loſing of time, to go the ſame formal fruitleſs round with this brother I had done with the other, but juſt before; and I had no hopes of a cure but by a ſpeedy check given to the diſeaſe, in this ſtage of it, now pretty far advanced. I adviſed a ſea voyage. The firſt day at ſea he had a ſharp appetite, which increaſed ſo much that, in a few days, he

could eat heartily the ſhip's proviſions at every meal. He coughed very little. The noiſe hindering ſleep, he frequently walked on deck in the night without hurt. It blew ſo hard all the voyage, which was twelve days or more, that the crew were ſick; and once they were about to leave the veſſel, or run her aſhore. He was not ſick; and found himſelf ſo well, when he got to Briſtol, that he complained of nothing. But having the opportunity, he drank, as had been directed, the Hotwell three weeks. After being a month longer at ſea, coming home, the weather all the time blowing and foul, he returned, near the end of November, fat, hale, and ſtrong; and has continued ever ſince in perfect health, without any apprehenſion of the return of his diſtemper; the time of life, which expoſed him moſt to danger being long ago paſt.

HISTORY II.

Conſumption.

A STRONG healthy plump young woman, aſſiſting to extinguiſh a fire in the night, wrought very hard, with ſcarce any clothes upon her, for ſome hours, was exceſſively

ceſſively heated, and ſweated profuſely. When the affair was over, ſhe had no care to go to bed, or cool herſelf gradually, but ſhifting, went about her ordinary buſineſs. In a few days a hard, dry, tearing cough ſeized her, with great difficulty in breathing; which increaſing, in a ſhort time, waſted her extremely. All winter and ſpring ſhe continued in a way that, conſidering the greatneſs of the diſeaſe, and the greatneſs of the cauſe, gave no hope, but from the diſeaſe growing chronical, the ſymptoms not increaſing, and a better ſeaſon coming on. At length, after a tedious uſe of many remedies, as they were indicated, in ſummer ſhe got free in a good meaſure of the cough, and recovered fleſh, and a tolerable ſtate of health. But her breathing was bad, and eaſily affected by motion or labour, which preſently overcame her. In this way, better and worſe, ſhe continued ſome years, upon the whole gaining more health. When, contrary to expectation, ſhe had now recovered a ſort of ſettled health, in ſummer, without any ſenſible cauſe, the cough returned, with greater violence than ever; attended with profuſe night ſweats, and looſeneſs, and under

theſe a prodigious loſs of fleſh and ſtrength. Nothing was able to reſtrain the rapid progreſs of the diſeaſe. After much ſcruple, for ſhe was now exceeding weak, and the ſymptoms great, I adviſed a voyage; with more freedom at laſt, as ſhe was was fond herſelf to try it. She returned in two months in perfect health; except that there ſeemed to be ſtill ſome ſmall difficulty in breathing; but not the leaſt impediment in labour or exerciſe. Soon after ſhe married, left her own country, ſuffered hardſhips and vexation, bore a child, became conſumptive, and died.—When I ſay a voyage laſted ſo long, for the moſt part they were not a third of the time at ſea.

HISTORY III.

Conſumption.

A YOUNG man riding all day wet, took cold. In a little time a ſevere, dry, frequent cough came on, with ſhort breathing, conſtant fever, and a diſcharge of much watery phlegm from the parts about the wind-pipe, from the conſtant labour in coughing. Notwithſtanding all that could be

be done to ſubdue the fever, &c. after ſix weeks no ground was gained; and a conſumption ſeemed faſt approaching. A voyage to ſea was propoſed. They had not proceeded far, till, by the ſhifting of the wind, they were obliged to put in again; and rode twelve days in an open bay, expoſed to the ſouth, the weather and ſeaſon favourable. Here living in the ſea air, and ſuffering the gentle exerciſe, the ſymptoms abated ſo much that he laid aſide his deſign of going to ſea, and from this time daily recovered; nor has he ever had the ſmalleſt tendency to a relapſe, though it is now ſeveral years ſince.

HISTORY IV.

Conſumption.

A YOUNG gentleman catched a ſevere cold in winter, which was ſoon ſucceeded by a vehement, continual, dry, hoarſe, hollow cough. Not recovering, though ſomewhat better at times, in ſpring and ſummer; he made a long journey in autumn. It was then I firſt ſaw him. The cough remained, with ſhort breathing,

heaving of the ſhoulders, and inability to make a full inſpiration. He had frequent faintneſs, and ſickneſs, and was extremely waſted, without fever, loſs of appetite, or any increaſed evacuation. This waſting reſembled nothing ſo much as the aridity of old age. Two or three months, if ſo much, was the utmoſt he could live in this country. He went to ſea immediately. The firſt ſeven days he found no alteration, only a better appetite, which on going aſhore ten days grew worſe. About a week after this, going to ſea again, the cough abated, and was very little troubleſome the reſt of the voyage; his appetite increaſed, he gained good ſpirits and ſtrength; and ſix or ſeven large boils ſuppurated below his armpits before he reached Liſbon, which was thirty-ſeven days from his going on board laſt; contrary to what had been adviſed; for I propoſed living at ſea altogether, if it agreed: he was perſuaded to ſtay there in the country, where he continued ſlowly to recover, but not to ſuch a degree as he had flattered himſelf. He returned, however, in May much better, yet not ſo well as to make it ſafe for him to live in Britain, during the winter, which he paſſed

paſſed in Italy. The beginning of ſummer he came home, in all reſpects well; except for ſome remaining cough, which may expoſe him to danger: but this he hopes to wear off by going for ſome time on a ſea-faring life; having always found the moſt ſenſible relief from coughing, and beſt health at ſea; and as ſenſible a decline, on being two or three weeks aſhore. This laſt voyage, which laſted ſeven weeks, he thought did him moſt ſervice, though the weather was all the time ſtormy, and reſtored him to ſomething like a confirmed ſtate of health.

HISTORY V.

Nervous pain of the ſtomach.

A YOUNG gentleman bred to the law was ſubject to a pain of the upper orifice of the ſtomach, derived perhaps from one of his parents, conſtitutionally diſpoſed to nervous complaints. A ſedentary life, and much writing, increaſed his ailment, which at laſt became conſtant and ſevere. He was rendered incapable of all buſineſs. Two years he paſſed in this ſtate, with very little remiſſion, and ſcarcely ever an interval from pain;

and ſome worſe diſeaſe was apprehended. Every thing commonly preſcribed and recommended in ſuch caſes was tried, nor were ſingular remedies omitted, but all without effect. He went to ſea the end of September, and was ſeverely ſick all the time he was at ſea, but ſoon found benefit; and having been abſent near three months he returned free of all complaint. Two years after he had ſmall returns of his illneſs. He went another ſhort voyage. Since that, and indeed, from his firſt going to ſea, he has always been able to attend cloſe to buſineſs.

HISTORY VI.

Vapouriſh languor and fever.

A YOUNG gentleman, whoſe father was of a lax phlegmatic habit, grew very faſt, ſo as at ſixteen or ſeventeen years of age to be uncommonly tall. From this quick growth, and a derived conſtitution, he was ſlow, languid, and unable to bear labour or exerciſe. A vapouriſh kind of fever ſeized him. He had pains of the ſtomach and ſides, the parts very tender to the touch, with a ſore or bruiſed-like pain all round the cheſt

internally, which made it difficult to turn himſelf in bed. A ſlow lurking fever attended, with coſtiveneſs and palpitation. The tongue was white, foul, and moiſt. He had little thirſt, but great inappetency and languor. A fortnight or more ſcarcely finiſhed all this; nor did he recruit from one fit till he was ſeized with another; and the diſeaſe in this ſhape, having frequent relapſes, became in ſome ſort conſtant and habitual. He was intirely laid aſide from buſineſs. I had ſeen him recover in ſome meaſure from ſeveral fits, but could not fall upon a method in the ordinary way to prevent a relapſe. I adviſed to ſend him, in the intervals, to ſea. He made two or three ſhort voyages, with much advantage to his ſtrength and ſpirits, which before he could never recover betwixt the fits. Growing ſtronger, he had ſeldomer returns of his illneſs, which was ſoon altogether removed; except that for ſome years he has had a ſtated annual fit. This he does not make ſo much account of, as to think it neceſſary to go any more to ſea; enjoying, at other times, as good health as a conſtitution ſomewhat delicate will allow.

HISTORY VII.

Conſumption.

A GENTLEMAN catched cold in Virginia, under which he laboured ſeven or eight months. He came over to Britain in winter, and was ſenſibly better on the voyage. He coughed much, had great ſtuffing and conſtriction of the breaſt, and labour in breathing; and upon any increaſed motion ſpit blood. He had night ſweats, and was a good deal waſted. I had ſcarce any farther hopes than to keep him from growing worſe till a better ſeaſon. Though by the uſe of remedies, and a very exact method of diet, he found great relief, there was but ſmall proſpect of recovery. A conſumption had been fatal to his family. In May he went to ſea again. The information I received on the return of the ſhip was, that he grew in all reſpects eaſy; ſo well during the voyage, that he thought himſelf at liberty to return to his ordinary way of living; and when he got to Virginia renewed cold bathing, which he had formerly been accuſtomed to. Soon after he was taken ſuddenly ill on a journey, and died in a few days.

HISTORY

HISTORY VIII.

Conſumption.

A GENTLEMAN was, during the late war, taken by the French, and obliged to lie ſeveral nights on a cold wet deck, and was afterwards thruſt into priſon. Here he contracted a violent cold, with great cough, fever, and waſting, which continued ſeveral months, having all the appearance of a conſumption; till, on going a voyage to Jamaica, he recovered intirely at ſea.

HISTORY IX.

Conſumption, with purulence and ſpitting of blood.

A YOUNG gentlewoman, of a delicate florid complexion, fell into a conſumption, of which her mother, a brother, and a ſiſter, had before died. She had for ſome months a troubleſome night cough, ſweating, frequent ſpitting of blood, ſuppuratory fever every two or three weeks, and large diſcharge of pus. An uneaſy pain of the left ſide of her breaſt was not her ſmalleſt complaint. By the

the uſe of remedies ſhe ſeemed to mend conſiderably; but, not amuſed by the flattering appearances of an inſidious diſtemper, I prevailed with her to go to ſea. Here ſhe found herſelf much better. Being obliged to live on ſhore ſome days, in very hot weather, and a cloſe place, ſhe was ſeized again with ſpitting of blood, which ſhe had been free from a long time. Coming home the ſhip put into a harbour, and was wind-bound a month. As I had adviſed, ſhe now ſailed every day in a boat. Her return gave me equal pleaſure and ſurprize. She had recovered her fleſh and looks, and none of her complaints remained, but a ſmall degree of hoarſeneſs. She would not be perſuaded to go to ſea again, ſaying ſhe was very well. In winter ſhe had ſome ſlight returns of ſpitting of blood and matter, but was every way much eaſier than ſhe had been the winter before. In ſpring a fever, then epidemical, ſeized her, which ſhe got over; but from this time languiſhed, became wholly conſumptive, and died.

HISTORY X.

Suppurations of the lungs.

A STRONG labouring man was, from a weight falling upon his breaſt, taken with a ſpitting of blood, which frequently returned, and ſometimes he ſpit a pound or two at a time. He had frequent ſuppurations, and great diſcharges of pus, and was ſo weak and emaciated that during the ſuppurations he was confined to bed. Under a ſtrict regimen, and abſtinence from ſpirituous liquors, which he had uſed too familiarly, in ſummer he made two or three ſhort trips to ſea. From his firſt going to ſea he had no returns of ſpitting of blood; the matter was gradually dried up; and he recovered to a conſiderable degree his health and ſtrength: ſo that in October, when I happened to ſee him, he had a hale look, there were no remains of fever, and he was able to go about freely, but not to follow his ordinary labour. A little cough ſtill remained. In winter he was obliged to ride to a good diſtance, in great haſte, and bad weather; by which he catched cold. A new ſuppuration came on; and under large

large purulent ſpitting, conſtant fever, and ſweating, he waſted faſt, and ſoon died.

HISTORY XI.

Megrim.

A GENTLEMAN, a great while ill of a megrim, was obliged, but without any regard to his diſtemper, to go to ſea; by which he was cured, though the voyage was but ſhort, for ordinary only a few hours ſail.— In ſome diſeaſes of this kind, ſailing ſeems to be a fit remedy, whether it be an original diſeaſe, or by ſympathy from the ſtomach, where often the cauſe of it reſides.

HISTORY XII.

Conſumption from a pleuriſy.

A YOUNG gentleman, many years ago, after a violent pleuriſy, from which he very hardly eſcaped, with great loſs of blood, was now in equal danger from the conſequences of it. The pain of his ſide continued, ſevere cough, and large expectoration; attended with profuſe ſweats and great waſting. Under theſe he laboured a twelve-month, or more.

more. In ſummer the ſweating and expectoration abated, but a hard dry continual cough remained; and ſo great was his weakneſs, and difficulty in breathing, that he could not bear the ſmalleſt exerciſe, even but walking, without frequently reſting. He undertook a voyage of five or ſix weeks, and in a few days became eaſier. The cough ceaſed, his appetite increaſed, and he recovered fleſh and ſtrength; ſo much that, coming home, he often did the buſineſs of a common ſailor for his diverſion; and the ſhortneſs of breath went off. On his return he found himſelf in good health; and, by going to ſea, once a year, for three or four times, always with ſenſible benefit, has continued ſo; except that in froſt, or when the wind is in the eaſt, he is ſubject to a cough, and ſtraitneſs in breathing.

History XIII.

Rheumatiſm and nervous diſorders.

The following hiſtory I give in the gentleman's own words, one no leſs dear to me on account of real worth than relation.——

" For two years I languiſhed much, from a

" great

" great relaxation of nerves, occaſioned, I
" ſuppoſe, by living ſo many ſummers in a
" warm climate, and from fevers and agues,
" with which I ſeldom failed to be attacked
" three or four times a year, which I believe
" had corrupted the whole maſs of my blood.
" I ſuffered extremely from pains of my back,
" thigh, arms, and ſhoulders, ſo that I could
" ſcarcely raiſe my body, or ſtand upright;
" and was obliged often to get out of bed two
" or three times in the night. All theſe cauſed
" a loſs of appetite, fleſh, ſtrength, and com-
" plexion; attended with great laſſitude, and
" diſinclination to buſineſs. For this com-
" plicated diſorder I took great quantities of
" medicines, and uſed warm baths, and dry
" cupping, but without any real ſervice. Juſt
" going on my Weſt-India expedition, I was
" taken with a violent pain of the left ſide of
" my breaſt; for which I was blooded, and
" applied many things externally and inter-
" nally; which, not anſwering the intention,
" firſt one bliſter, then another, were applied
" to the part, and with no effect. Before the
" laſt healed I was obliged to go on board.
" By the time I had been five days at ſea my
" appetite grew better. In ten or twelve days
" I found

"I found myſelf conſiderably ſtronger, "though I obſerved no regimen in diet, nor "did I take any medicine whatſoever. The "pain of my breaſt continued, but not ſo "violent. I grew however daily better, both "during my voyage to St. Kitt's, and while "cruiſing among the Leeward Iſlands; ſo "that when about to return, I was grown "quite fat, and had got a good complexion, "and felt no pain of my breaſt, but on mak-"ing a full inſpiration. After my return to "Virginia the pain returned likewiſe, and "continued to increaſe till I went to ſea "again, when it again abated, ſo much in a "fortnight that it gave me little trouble. I "had been but a ſhort time in Britain till it "increaſed greatly; and though, by the ad-"vice of ſome of the moſt eminent of your "profeſſion, I have found relief, it is ſtill re-"turning. On going to ſea again I hope to "get free of all my ailments."—This diſeaſe, changing its ſeat, became a nervous head-ach before he left Britain, violent and of long continuance, which required frequent large bleeding, and was much increaſed on going to ſea, by the motion of the ſhip.

HISTORY XIV.

Conſumption.

A GENTLEMAN, whoſe ſiſter died lately of a conſumption, was ſubject habitually to a cough, which increaſing, with large expectoration of thick ſweetiſh matter, grew very troubleſome, in the night eſpecially, and waſted him much. During a ſix weeks voyage, from his firſt going to ſea, he never almoſt coughed. But on going aſhore he lay in damp ſheets, got cold, and the cough became again very uneaſy. He returned notwithſtanding, in winter, fat, well-coloured, and ſtrong, and continued ſo a twelve-month. After this the cough increaſed, a true purulent ſpitting came on, he had frequent large hæmorrhages from the lungs, and under the beſt means I could deviſe the event proved fatal.—— It is preſumed that, by ſailing, a conſumption was, in this caſe, a conſiderable time prevented, and might have been kept off much longer, or a cure perhaps obtained, had not an accident cauſed a return of the cough, and this method of ſailing been ever afterwards declined.

HISTORY XV.

Ulcer of the breaſt and lungs.

A GENTLEMAN, by a kick of his horſe on the breaſt, fell into a ſpitting of blood, which frequently returned, attended with a large purulent ſanious diſcharge, mixed with many pieces of membranes, and a ſenſe of weight and ſoreneſs of the part internally. Thus he continued, waſting and languiſhing, ſeveral years, in the uſe of many remedies, preſcribed by thoſe of greateſt ſkill in different places; nor was he, except once for the ſpace of one month, free for any time from theſe diſcharges. After coughing up larger pieces of membranes, the diſcharge ceaſed again for ſome weeks, which gave him hopes he was now to have no more returns. I inſiſted, however, on his going to ſea; uſing for argument, that this was a proper time, and method, to aſſiſt nature, compleat a cure, and regain his former health. He was abſent only a few weeks, eighteen days of which he was at ſea, and one fortnight aſhore he drank milk, but returned ſurprizingly mended. He had got a great deal of fleſh, and a

ruddy complexion, and was able to walk ſeveral miles without being fatigued, who before found it difficult to go about ſlowly, in the courſe of an eaſy buſineſs. Some years now he has been free of all complaints.—Was living at ſea a cure here, or did it only ſerve to confirm a cure? It muſt be owned it was undertaken at a lucky time. Would a journey by land have had ſuch a remarkable effect, in ſuch a ſhort time, or a much greater, even but in the view of reſtoring him from a mere languid ſtate, after ſo long want of health? Would it have been as ſafe, and as eaſily ſuſtained, in ſuch a delicate diſeaſed ſtate of the lungs, and ſuch a degree of weakneſs?

HISTORY XVI.

Doubtful and difficult recovery.

A PERSON of diſtinction, on account of a complicated and ſeemingly deſperate illneſs, entered upon a long courſe of medicine, which nothing but uncommon reſolution, and original ſoundneſs of conſtitution, could carry him through. Before the diſeaſe was half ſubdued, an epidemical dyſentery ſeverely

verely ſeized him, which interrupted the courſe, and gave opportunity to the former diſeaſe to ſtrengthen itſelf, and was the occaſion of the courſe being lengthened out ſome months longer. The diſeaſe being overcome, except what time and other methods, it was hoped, would carry off, many months were ſpent at home in order to reſtore him; but a ſlow return of health, and his continuing long emaciated, made the event doubtful, and gave apprehenſions of a hectic and conſumption. In the depth of winter, weak and waſted, and his legs much ſwelled, he beat about in the channel three weeks, in a continued ſtorm. Putting in again he lived ſome weeks aſhore. Moſt of thoſe on board were ſick during the ſtorm but himſelf, whom they never expected to ſee the end of the voyage. He ate and drank heartily during the whole of it. Some foul deep ſcabs, which hitherto could not be ſubdued, but always returned, now threw off, and the parts healed. By the time he reached Liſbon, which coſt ſeven days more at ſea, he was almoſt wholly recovered; and has now long enjoyed a confirmed ſtate of vigorous health.

HISTORY XVII.

Spittting of blood.

A YOUNG gentleman, tall, and inclining to be thin, with a ſoft ſmooth ſkin, and lank hair, was ſeized with a ſpitting of blood; and had returns of it to a conſiderable degree. After the uſe of ſome remedies, I adviſed him to go to ſea. The voyage out was about ten days. Coming home they ſtruggled with a heavy ſea, and ſtormy weather, for ſome weeks, in winter, and a ſmall deep laden veſſel, which at laſt was ſtranded; and he lived afterwards four months in a low, wet, foggy, maritime place. Under ſuch a threatning appearance, I thought a ſea life the moſt ſpeedy and effectual way, not only to ſecure him againſt a relapſe, but to prevent a conſumption, which, about the ſame time of life, had been fatal to two of his family, a brother and ſiſter, but ſome years before. Neither the terror, and fatigue, he ſuffered from the danger he was in, nor living ſo long in an uncomfortable place, cauſed any return of his diſeaſe, or any way impaired his health. He grew fat and ſtrong, and has now ſome years

years continued in all reſpects, as to this diſeaſe, well.

HISTORY XVIII.

Vapouriſh pains, languor and fever.

A YOUNG gentlewoman, during winter and ſpring, laboured under pains of the ſtomach and belly, eſpecially the right ſide, loſt her appetite and ſtrength, and languiſhed extremely under exceſs of pain. She uſed many things, which either did no good, or ſhe for the moſt part threw up. Her weakneſs and diſeaſe increaſing, and other remedies yielding ſmall hope, I urged a voyage to ſea. Part of a letter from a reverend clergyman, her relation, will ſhew the effects of it. "My "niece, after much languiſhing, and many "fits of pain, adventured at laſt to follow "your advice. Though ſhe was ſo weak "and ſickly that with difficulty ſhe was got "to the veſſel, and ſo very ill by the way, "and for ſome time after ſhe landed, that "they were afraid of the conſequence, yet "ſhe recovered apace; and after another fit "of vomiting in her return, ſhe ſeems to be "ſo much changed for the better, as could

"hardly have been imagined."— She was five hours going out, and ſixteen in the return. By this ſhe gained ſo much ſtrength, and relief from pain, as to be able to undertake riding; from which (having an averſion to the ſea exerciſe) and change of air, and amuſement, a thorough cure was expected. Summer and autumn being ſpent, ſhe continued ſtill in an uncertain way. I perſuaded her to make the ſame voyage, and ſhe ſoon altogether recovered.—Several others, under great languor, pains of the ſides and ſtomach, flatulence, want of appetite, vomiting, and the like vapouriſh ſymptoms, have aſſured me that, after the ſickneſs, they found more real eaſe, and freedom from their complaints, than from all they before had uſed, and a ſenſible turn was given to the diſtemper.

HISTORY XIX.

Conſumption.

A YOUNG gentleman, ſtudying the law, contracted a hard dry cough, which brought on profuſe night ſweats, with great loſs of fleſh, ſtrength, and appetite. From the ſucceſs of it in ſome of his acquaintance, who were thought far

far gone in a conſumption, he fondly embraced the firſt propoſal of a voyage to ſea. The ſhip was detained ſix weeks longer than was intended. His legs ſwelled, and a looſeneſs came on. The firſt two days at ſea he vomited much bile and phlegm. The ſweating and looſeneſs went off, and the ſwelling of his legs, and he could eat. He began now to ſpit matter in great quantities, and waſting daily, though he ſtill retained his appetite and ſpirits, he died on the voyage aſhore.—Had it been undertaken when firſt propoſed, and the abſceſſes ſooner broken, before the colliquative ſymptoms made ſuch a progreſs, judging from the benefits received in ſuch a weak ſtate, there was ground to expect a longer reprieve at leaſt, perhaps a better event.

HISTORY XX.

Aſthma.

A CLERGYMAN, of the moſt relaxed frame, almoſt diſſolved into phlegm, and unable to uſe any other exerciſe of efficacy, made twice a voyage to ſea. His health was rather improved than the aſthma bettered;

which in ſuch a great diſeaſe, as this certainly was, could not be expected, as the time of being at ſea was always ſhort, nor did he ſuffer the ſickneſs.

History XXI.

Conſumption.

A gentleman, with ulcerated lungs, undertook a voyage. Fear and the ſickneſs diſcouraged him, and he continued only eleven days at ſea; and even in this ſhort time there was an interruption, by his going aſhore ſome days. After which he made long journeys, drank Briſtol water on the ſpot, uſed all the moſt approved home methods, returned to his own country, and, languiſhing three or four months, died.

History XXII.

Palſy.

To a gentleman, in a pretty high degree of univerſal palſy, many methods and remedies having been tried in vain, I adviſed a long voyage, to drink ſea water, and bathe in the ſea, and, when got to America, broth of

of the rattle-ſnake. The diſeaſe had, in the courſe of a good many years come on ſlowly, he walked very ill, and his ſight was a good deal impaired. A fever, which ſeized him on going over, it was thought would have done him ſervice; but being of the depreſſed kind, it ſerved only, for the time at leaſt, to enervate him more. After living a conſiderable time in the country, he returned much the ſame. This diſeaſe, in like circumſtances, I have not ſeen cured by any method.

THESE are all the inſtances wherein I have directed living at ſea for the cure of diſeaſes, except one or two more, from which nothing was to be inferred, as it was undertaken with great diſadvantages. Other inſtances, which I can fully credit, of its thorough efficacy, in ſome diſeaſes of a worſe kind, I have been informed of, but ſo that I am not able to form an exact relation of circumſtances: theſe therefore I but juſt mention. And were it attended to, it would be found, I am perſuaded, that many great cures are, without intention, daily brought about by this method, though not imagined perhaps

to

to be owing to it. I ſhall from the foregoing hiſtories only offer the following ſhort remarks.

In all of them almoſt the good effect of ſailing is evident; and the more remarkable that it ſhould have happened in ſo many caſes ſucceſſively: the laſt four are not to be reckoned.— The benefit was derived altogether from ſailing, as no other remedy was uſed during their living at ſea.—It did not depend wholly on the exerciſe, for ſeveral were not at all, or very little ſick; and that mere geſtation ſhould reſolve tumors, prevent ſpitting of blood, and dry up pus, cannot eaſily be conceived; or that theſe effects were owing to an increaſed action of air, ſolely as air, is as little probable.— It has been chiefly in conſumptive caſes that I have recommended ſailing; to the cure of which it ſeems altogether ſuited; and as no adequate remedy has yet been diſcovered, this encourages and juſtifies a ſerious trial of it, in this particular diſtemper, ſo frequent and fatal in Great Britain. — Not only is it in general ſuited to the cure of a conſumption, but, which cannot be ſaid of other remedies, ſailing and ſea air ſeem to be accommodated equally to the different kinds

kinds and ſtages of it, while yet curable; that is, both in the crude ſtate of ſimple obſtruction, and in purulence, or ulceration, from different cauſes.— It appears farther to be no leſs adapted to thoſe concomitant circumſtances of it, in which other exerciſes are very often found hurtful, fever, inflammation, and ſpitting of blood.— The practice, if no other advantage is gained by it, procures at leaſt a manifeſt abatement of ſymptoms, or a ſuſpenſion of the diſeaſe, which is a point of great moment, as thereby an opportunity is given to attempt a cure, by regular courſes of medicine, if theſe are requiſite.— That ſeveral of the conſumptive died, after making trial of a ſea life, is no juſt objection to the method propoſed. The lungs, once to any degree affected, remain ever after, or for a long time, weak, waſted, in part obſtructed, or impaired in their motion, and, from theſe cauſes, liable to be again affected; until in a courſe of time, under due management, the parts are ſtrengthened, calloſities removed, and the veſſels rendered pliant or permeable.— Nor was the time allowed for ſailing often ſufficient, in ſuch a great degree of the diſtemper, to render

render the ſucceſs compleat in a thorough cure; which, as far as the nature of the diſeaſe would admit, it is not improbable, might, by perſeverance, have been accompliſhed.

CHAP.

CHAP. IV.

Living at ſea a proper remedy, and how it operates.

I HAVE been often aſked what it was in ſailing, or living at ſea, that rendered it a fit remedy, what effects it had, and how theſe effects were produced? The more curious will perhaps, in matters of this kind, find amuſement at leaſt.

The firſt effect of ſailing is the ſickneſs, which takes place immediately, and, juſt entering on a ſea voyage, cleanſes the firſt paſſages of ſuch bad humours as retained might vitiate the chyle, and prove a continual *fomes*, till otherwiſe overcome, of impurities and diſorder of the blood. In this it, ſo far, very properly, correſponds with the uſual *præmittenda* in all regular medicinal courſes.

But the benefit of ſea ſickneſs is not reſtricted to the bare cleanſing of the firſt paſſages. Vomiting, by deriving a greater ſupply of blood and ſpirits into the parts, warms and ſtrengthens them; and the long continued nauſea, giving a laſting contractility, reſtores

reſtores the tone of the ſtomach, and it's appendages; which from natural weakneſs, or other vice, are unable to do their office; whence a bad digeſtion, the bad effects of which are felt in all the after concoctions. On theſe accounts, therefore, it muſt be a ſure remedy in many diſeaſes that have their ſeat in, or depend on the diſtempered ſtate of the alimentary tube. The invigorating power of ſailing on the ſtomach and bowels, is evident from the coſtiveneſs cauſed by it, and great appetite it ſeldom fails very ſoon to give; ſometimes when it has been intirely loſt, and could not by other methods be reſtored.

Vomiting, farther, by the repeated ſuccuſſions it gives, and evacuation it promotes, makes a ſtrong revulſion, reſolving the impacted matter of diſeaſes, and ſo becomes deobſtruent. From daily experience we know that particular tumors, and topical inflammations, threatning a dangerous apoſtemation, and fixed obſtinate pains, are removed by it; rebellious ulcers it renders more tractable; and hæmorrhages are wholly ſtopt, reſtrained, or prevented thereby. Dropſies, likewiſe, and a mania, yield ſometimes moſt readily to it. Nothing perhaps cauſeth

cauſeth greater violence and diſtenſion in vomiting, than that which ariſes from the nauſea at ſea. Therefore the commotion excited in ſailing, was ſaid to have the ſame effect as hellebore; and the vomiting cauſed by the continual rolling of the ſhip, to be a cure in many diſeaſes of the head, breaſt, and eyes, and thoſe in which hellebore was given [a].

Sailing has been reckoned ſtill farther of uſe, as at ſea the air ſeems to be poſſeſſed of real alterative virtues, from the many ſaline, and other corpuſcles of different powers, joined to it, and plentifully imbibed by the inhalant veſſels. The marine vapour, according to Oribaſius, is not humid, that is, cold and relaxing as water, but dry and acrid,

[a] Commotio denique quæ in navigatione excitatur, vim habet elleboro levi et albo perſimilem. Oribaſ. *Medicin. collect.* lib. vi. cap. 23.

Quin et vomitiones ipſæ in ſtabili volutatione commotæ, plurimis morbis capitis, oculorum, pectoris medentur; omnibuſque propter quæ elleborum bibitur. Plin. *Hiſt.* lib. xxxi. cap. 6.

Illa autem quæ fit procelloſo in mari jactatio, robuſtiſſimum hominem non aſſuetum, vertigine, vomitu, anxietate intolerabili, ipſo animi deliquio, efficit; hinc caſu aliquando morbos inveteratos ſic ſanari novimus. Van Swieten *Comment. in Boerh. aphor.* Vol. i. p. 34.

or of an active penetrating nature. For this reaſon maritime places were judged proper wherever there was occaſion to warm, reſolve, or deterge [b]. Sea air, through its ſaltneſs, Cælius ſays, is greatly aperient, and cleanſes the body from impurities; by ſome change made upon it renewing the habit [c].

There is in the air a certain principle neceſſary to life, of which we have no determinate notion, and maintained only by a free circulation of it. The unhealthineſs of places not duly perflated, is owing perhaps to the want of this principle, which thoſe in great

[b] Quæ autem in navibus [fit geſtatio] hoc magis habet quod in purgato aere, et in quo non humidi vapores, ſed ſicci et acres ſint, efficitur; et ob eam ipſam cauſam eſt præſtantior. Oribaſ. *Medicin. collect.* lib. vi. c. 23.— Loca vero maritima ubi detergendum, aut calefaciendum, aut aperiendum, conveniunt. *Id.* lib. ix. c. 11.

[c] Etenim fluminales, vel portuoſæ, atque ſtagni navigationes incongruæ judicantur, quoniam humectantes caput infrigidant exhalatione terrena: maritimæ vero latenter atque ſenſim corpus aperiunt, et, ſalſæ proprietatis cauſa, corpus adurunt; atque ejus habitum quadam mutatione reficiunt. Cælius Aurel. lib. i. *Morb. chron.* cap. 1.— Eſt enim lacerantior, atque corporis apertionibus efficax, ob ſalſitatem, maritimus aer. Id. lib. iii. *Morb. chron.* cap. 8.

cities

cities and towns, in low and confined ſituations, are obliged, for the preſervation of health, and recovery from diſeaſes, to ſeek in the country, and more expoſed ſituations. Perhaps too, this vivifying principle exiſts more at ſea, air here being ſo much purer, and milder, and highly cheriſhing. The excellency of it in theſe reſpects has been always, from experience, even a vulgar obſervation, and nothing is more commonly ſpoken of than the freſhneſs of ſea air, which carries along with it the idea of greater purity and wholeſomeneſs. Ariſtotle aſſigns, as the cauſes of this greater healthfulneſs, the agreeable temperature of it, and its being better ventilated [d]: and it was reckoned one great advantage of ſailing that it is performed in a pure air [e].

The exerciſe in ſailing is a chief circumſtance of its operation. Geſtation at ſea is quick, vehement, and inceſſant, very various and contrary. In this rocking motion there-

[d] Cur qui in navibus degunt, quamvis in aqua, colorationes tamen ſunt, quam qui in paludibus? An loca commodè aſpirata coloris præbere hilaritatem poſſint? Ariſtot. *Probl.* ſect. 14. queſt. 12.

[e] Oribaſ. ubi ſupra.

fore there is a perpetual ballancing, from a continual change of the centre of gravity, by which all the ſolids act, and the fluids are acted upon, with great variety and effect, and are very differently moved and determined: ſo that the juices are all thus more effectually mixed, comminuted, and propelled, in order to produce an uniform well elaborated fluid, the blood. The lungs, by their unceaſing motion, and a thorough agitation of the blood, as in churning, are the main inſtrument of ſanguification, which in many diſeaſes, eſpecially the organ itſelf affected, is very imperfect. Will not the conſtant various action, induced through the whole ſyſtem of muſcles in ſailing, be ſubſidiary to the now impaired action of the lungs; and does it not, more than any other exerciſe, emulate, and ſupply the want of, this ſanguifying power in them?

A farther addition to the exerciſe at ſea, beſides the greater action of air in general, ariſes from the manner of its acting in an undulatory way, by which mechaniſm it obtains a much greater efficacy, than when it acts only by a conſtant equal preſſure. From an unequal preſſure of the air, in a percuſſive way,

way, it is that many low ſpirited and hypochondriacal people, feel greater conſtancy, and elevation, in windy bluſtering weather, though rainy, and in thunder. The contrary happens to them in calm mild brooding weather, though not rainy, as in ſpring, or ſummer, when often they are worſt. In this ſeaſon and weather there is a ſmall action of air, the ſolids are more relaxed, and the humours, from theſe cauſes, are diſpoſed to move ſlowly.

But a life at ſea is to be conſidered, in the cure of diſeaſes, as having a mighty influence on the mind, which, by conſent, muſt neceſſarily and powerfully affect the body. In ſailing there is a ſtrange mixture of paſſions, and in extremes; ſea-faring people being, from hope and fear, ſometimes merry, ſometimes ſad; exulting with joy, when at reſt, and in ſafety; and in danger, thrown into the utmoſt deſpair. Such various, and ſudden tranſitions of paſſions, are able ſomehow to remove diſeaſes inveterate, and not curable by other methods [f].

[f] Verum geſtatio per pelagus vehementiſſima eſt, et mutationes plurimas et maximas facit. Nimirum quum anima mixtos affectus habeat ex triſtitia et ſpe; timore ac periculo; modo gaudentibus et lætis, modo in agone

Many cauſes certainly exiſt at ſea capable of producing great changes in the animal body, and that very differently affect it; therefore ſo many virtues are aſcribed to it. There is one diſeaſe, to the cure of which, by a particular manner of operating, it is ſo much appropriated I think, and of ſo much importance, that a farther explication will not perhaps be unacceptable; and that is a conſumption.

A conſumption is a local affection, and external, or expoſed to the air. It is eaſy to comprehend how exerciſe, and change of air, and climate, may be of ſenſible benefit to the habit, but few have regarded the vapour, or ſpray, at ſea, as a ſuitable application to the lungs. When I ſpeak of this I preſume it is granted, that to attempt the cure of the vice of the part, chiefly affected in a conſumption, by applying a remedy directly to the part itſelf, is a reaſonable and neceſſary intention. To cure the ulcer of the lungs is to cure the diſeaſe, which will not be eaſily done, I ſuſ-

exiſtentibus navigantibus. Omnia hæc compoſita ſufficientem vim habent omnem veterem morbum exigendi, et e corpore excludendi. Ætius *Medicin. contract. tetrab. prim.* ſerm. 3. cap. 6.

pect,

pect, by remedies that affect them but remotely, and in a trifling proportion, by means of the circumfluent blood only.

The neceſſity and ſucceſs of fumigation in ulceration of the lungs, is by various authors inſiſted on, and various forms of remedies are propoſed, both for ſteam and fume; to be conveyed by proper inſtruments into the lungs. Drying antiſeptic ſubſtances are directed likewiſe, to be held conſtantly in the mouth, that with the effluvia of theſe the air and ſpittle may be plentifully impregnated; nor upon the intention is the method contemptible.

Inſtead of theſe artificial applications, though they were in uſe too, the ancients endeavoured to find a properly medicated air for the conſumptive to live in. In this view, thoſe having ulcerated lungs were ſent to Libya, or ſome ſuch place, where breathing in the foreſts filled with pitchy effluvia, they are ſaid to have lived many years ſafe. By Galen they were ſent to Stabiæ, the ſituation of which, on the ſhore, betwixt Naples and Surrentum, ſeems to have been remarkably favourable. Sufficiently elevated, as well as defended from eaſt and north winds, and in-

clining to the ſouth, it was advantageouſly expoſed to all the mild healthful ſea influences. And from Veſuvius, continually throwing out ſmoak and aſhes, the air was filled all round with ſulphureous exhalations. The internal heat of the mountain, part of which extended to Stabiæ, would cauſe a tranſpiration of ſuch effluvia likewiſe.

The great reſource in conſumptions with us has been to go to a warmer climate, and breathe a lighter and purer air; and the excellency of air, in thoſe places to which the ſick are ſent in more ſoutherly climates, conſiſts in the mildneſs of it, and the conſtancy of weather, and regularity of ſeaſons; and compared with air in places farther north, that are cold and moiſt, the weather continually varying, is certainly preferable, and does leaſt harm. May it not be a queſtion however, whether, according to the prevailing belief, a finer air is here always beſt? Experience ſhews that it is not. In a pure ſerene dry air I very often obſerve them grow worſe; and to live eaſieſt in weather and ſeaſons ſeemingly more unfavourable; in an air particularly that, as Fred. Hoffman, who makes the ſame obſervation,

ſervation, expreſſes it, is temperately humid: of this character is ſea air[z].

If, as hath been alledged, air at ſea is really endowed with greater gravity or elaſticity, it will anſwer, with more advantage, all the mechanical purpoſes of air in reſpiration; that is to dilate freely the weak, flaccid, or ſtiff callous lungs; procure conſequently an eaſier circulation through them; and make a due compreſſion on the tender blood-veſſels,

[z] The lungs are a conſtant moving organ, and kept always ſoft, and yielding, and properly defended, by a fine pituitous lymph, or watery lining mucus. Moiſt air therefore appears moſt friendly to the lungs, and neceſſary to preſerve them from being inflamed, and ſo becoming leſs moveable; which they are apt to be under fever, heat, and dryneſs of air. But it has a farther effect, being better adapted than dry air to attemperate, refreſh, and ventilate the blood in the lungs. The comfort and benefit of a ſhower is very ſenſibly felt in great heats, by giving more ſpirits and freedom of reſpiration. In hot climates the cuſtom is, when almoſt ſuffocated, to ſit under the ſhade of a large cloth, kept conſtantly wet, from whence the moſt agreeable relief is found; which is plainly the effect of moiſture: and is farther confirmed by this obſervation, that the ſea breeze, though cool, always brings a breathing ſweat, or free perſpiration, and makes the body eaſy; which the dry ſultry land wind never does, as it diſpoſes the blood to be putrid and aduſt.

ſo

ſo liable to rupture, eſpecially in a hot unelaſtic air. On the tops of high mountains, where the air is very light, one breathes with difficulty, has a ſuffuſion of the eyes, and a ſpitting of blood ſometimes enſues. I remember, on a ſudden ſultry heat, ſeveral, in one night, ſuffered an hæmorrhage from the lungs. A parallel inſtance we have in hiſtory ninth of this treatiſe. This perhaps ſuggeſts a reaſon, why the conſumptive enjoy ſometimes greater eaſe in the thick air of large ſmoaky towns; becauſe filled with groſſer effluvia, it is not capable of rarefaction, and doing hurt, by its lightneſs, to thoſe of a delicate texture of lungs. Celſus makes it a neceſſary condition, that an air be choſen more denſe than that which the ſick go from: therefore were they ſent to Egypt [h], the air of which Proſper Alpinus informs us, in its maritime places, where it often rains, is very groſs. Formerly indeed they ſeem to have choſen moſtly places on ſea coaſts, and a heavier air, which does not altogether agree with modern notions and practice.

[h] Opus eſt cœli mutatione, ſic ut denſius quam id eſt ex quo diſcedit æger petatur. Ideoque aptiſſime Alexandriam ex Italia itur. Celſ. lib. iii, cap. 22. *De phthiſi.*

But,

But, which was principally in view, there is no other air can boaſt the advantage of being, at all times, replete with particles ſo fitly ſuited, in a ſtrict medical ſenſe, to the different morbid ſtates of the lungs in a conſumption. Sea air is a true pectoral, being properly medicated, and applied direct, in inſpiration to the lungs themſelves; and will not perhaps be found inferior in effects to balſams of the higheſt name. Among the exorbitant number of internals called pectorals, how few can with propriety be ſaid to merit this appellation. As ſuch their effect is partial and precarious. They reach the part only by the long round of circulation, and affect the whole body indifferently; being often equally good diuretics and ſplanchnics; or more generally ſweetners or antiſcorbutics. But the kindly warmth, balſamic nature, and ſaline humidity of ſea air, render it, as far I think as can well be imagined, upon all ordinary intentions of cure, externally a fit and a neceſſary application.

The reaſonableneſs and probability of this conjecture will not immediately, perhaps, be acknowledged by every one, nor ſhall I aſſert any thing. Imagining however, that being

frequently on water would be cooling and refreſhing to the weak parched lungs, and repreſs the fever, and likewiſe that there was ſomething more in the vapour than mere water, which gave it ſome reſemblance to thoſe medicated ſteams and fumes directed to be drawn into the lungs, and truſting little to exerciſe at land, I made ſome cautious trials of what uſe living at ſea would be. The benefit was ſuch as I had at no time obſerved from ordinary air and ordinary exerciſe. It was a farther encouragement to find that the ſame notions were held by the ancients; and that ſailing is by them generally, and for the ſame reaſons, recommended in a phthiſis.

It has been remarked concerning the uſe of ſea water externally, which is ſtill uſed in the ſame intentions by the vulgar, that it is good in ulcers already cleanſed, to extenuate them; in ulcers of fiſhermen that are of difficult ſuppuration; and in callous or fiſtulous ulcers, or thoſe badly cicatrized; ſpreading ulcers it likewiſe ſtops and mitigates [i]. In ſome ſuch ſtate are the lungs commonly found in a con-

[i] Hippocrat, lib. *De liquidorum uſu.*

ſumption,

ſumption; and ſuch effects, in ſome degree, it is preſumed, the ſpray or vapour will have upon them at ſea.

The ſea, to indulge a compariſon, may, in the preſent view, be repreſented as a ſingular ſpecies of balſam highly diluted; and, by its tenuity, commodiouſly fitted to emit plentifully by evaporation its ſeveral virtues: for the element here is richly ſaturated with a variety of true balſamic volatile parts; continually, by means of the ſun, winds, and ſubterraneous heat, exhaling in the vapour, which acts conſtantly on the lungs, as a proper bath or fomentation. This vapour was, by phyſicians of earlier times, thought to be of a warm, reſolvent, detergent nature. Aretæus particularly, a writer for accuracy and judgment inferior to none, conſidered it as a healing application, ſaying expreſſly, that in a conſumption, the ſaltneſs of the ſea communicates ſomething that is drying to the ulcers[k]; and practice ſeems very much to confirm it.

[k] Cum ulceribus enim quiddam ſiccum marina ſalſugo communicat. Aretæus *De curat. morb. diuturn.* lib. i. cap. 8. *De phthiſe.*

CHAP.

CHAP. V.

Of the right uſe of ſea voyages.

IN all things relating to ſailing the ancients were circumſtantial, and made many diſtinctions; as whether it ſhould be performed on the ſea, or in rivers; whether near the ſhore, or in an open ſea; whether in larger or ſmaller ſhips; with oars, or ſails; or in barges; in a vehement wind, or more moderate gale. Port and lake ſailing are mentioned likewiſe. To ſome a long voyage, or living at ſea, was preſcribed; to others a ſhorter. So exact have they been here, that Herodotus directed to begin with ſixty ſtadia, about ſeven miles, and by degrees to increaſe it to double. I ſhall offer on this head what has occurred to me from obſervation, or appears reaſonable in the way of conjecture.

An early application to remedies has been a conſtant injunction in all medical advices. But as ſailing is attended with ſuch ſeeming difficulty, hazard, and inconvenience, that it is undertaken for moſt part with reluctance, it is therefore not to be adviſed but in caſes wherein

wherein it is truly proper, and the degree of the malady requires it. There are ſome diſeaſes, indeed, in which it is ſo plainly indicated, that I never heſitate to adviſe it from the beginning. In a conſumption how many die daily, deſpiſing or not dreading the diſtemper at firſt, and truſting to ordinary methods and remedies afterwards. It is not uncommon to ſee them flying their country, to breathe a foreign and finer air; when, alas! they have not lungs left them to breathe with. When a cough begins to have joined to it a hectic in any degree, with ſweating or waſting, and loſs of appetite, and to give troubleſome nights, the danger is too apparent. No remedy of efficacy is now to be left untried, either by itſelf, or in conjunction with others; for very often, if we mean to attempt a radical cure, or this is poſſible, all aſſiſtances will be required, and all will perhaps prove ineffectual too. A ſea life, in this ſtage, has not hitherto failed fully to anſwer my expectations.

I have always found ſailing ſafe as to health, and ſucceſsful in good weather and bad weather, in winter as in ſummer, and in very different climates. In directing it therefore a nice attention to theſe does not

in

in general ſeem requiſite; and the neceſſity of the caſe preſcribes the rule as to the time.

Yet in certain caſes a regard to circumſtances will be neceſſary. The aſthmatic ſhould be ſent to ſea, when the vapour has in it more of the ſaline humidity, or where the weather is fair and ſerene, according to the cauſe of the aſthma, and the experience of what does good or ill. Rheums agree beſt with a warm dry climate, and dropſies; as, by increaſing perſpiration, it diſſipates the ſuperfluous humidity. Sometimes foul and ſtormy weather may do moſt good, for then the exerciſe is higher, and all the aerial influences are more ſtrongly impreſſed on the body. Therefore it promiſes to be of greateſt uſe in diſeaſes ariſing from a groſs foul habit, and a degenerate ſtate of glands; particularly a conſumption. During ſuch weather they inſpire in full draughts a ſpirituous ſaline air, or rich balmy humidity, fit to cool, deobſtruct, or deterge the lungs. And to receive all the benefit, they ought to keep as much on deck as they can with ſafety, and expoſe themſelves to the immediate free influence of this truly ſanative air, and powerful exerciſe. This I have conſtantly enjoined,

enjoined, and with it the ſick have always as faithfully complied.

I have ſtill leſs difficulty in adviſing to go to ſea in more unfavourable ſeaſons, as I know a change is thereby made into a warmer atmoſphere, and the air is avoided at land, in our cold watery climate, and ſuch ſeaſons, filled with rigid obſtipating parts, or a chilling oppilating moiſture. Theſe circumſtances are carefully attended to, and determine chiefly, in ſending thoſe under diſeaſes to a ſouthern climate, nothing being more dreaded by them, or hurtful to them, than the inclemencies, frequent and ſudden changes, and extremes of weather, to which through a long winter, we are ſo much expoſed.

Thoſe of greater delicacy, and liable to nervous ſpaſmodic affections, ſhould ſail at firſt in calmer ſeas, in a port or bay, and a milder air and ſeaſon, as they cannot ſuffer the commotion to a great degree, without diſturbance, or diſagreeable accidents.

Some preparation may perhaps be found neceſſary before going to ſea, ſuch as bleeding, or cleanſing the firſt paſſages, if theſe are indicated. Proper methods ſhould be uſed likewiſe when at ſea, to prevent exceſſive vomiting, aſtriction, or looſeneſs.

Sometimes a courſe of deobſtruents might be very properly directed, to aſſiſt in the cure. But hitherto I have always truſted intirely to ſailing. If a milk diet were neceſſary, thoſe of condition may have goats or a cow kept on board.

It is needleſs almoſt to ſay how long the ſick ſhould live at ſea: it is ſuppoſed they will, or ought, to continue till the diſeaſe is cured, and a confirmed ſtate of health regained. Some, it appears from the hiſtories, recover in a few weeks or months. Sometimes a few hour's ſickneſs have been ſufficient. In others, years may be required to complete the cure, and ſecure againſt a relapſe. I do not mean that they ſhould be always in all caſes at ſea, but now and then to go a voyage; which ſeveral, from the benefit received, were encouraged to do. It will prove more effectual, I think, than to ſend them to drink ſpaws, or milk, or upon very often fruitleſs land peregrinations; at leaſt, when all theſe have availed little, and after tedious courſes of medicine, I have tried it with ſucceſs.

If from weakneſs, doubtfulneſs of the caſe, fear, or averſion to it, it is not thought fit

fit to adviſe, or the ſick do not incline to make trial of a ſea life, the next expedient is to live on ſome ſmall iſland, or on a coaſt duly expoſed, where the vapour from the ſea exceeds the land exhalations, and the kindly ſea influences prevail. Here they may ſail every day, to obſerve what effects it has, and to accuſtom themſelves gradually to the unuſual motion, and a longer ſea voyage.

By this method ſailing may be regulated with ſafety and advantage to all caſes and circumſtances; for, by ſailing in a larger or ſmaller veſſel, at a greater or leſſer diſtance from ſhore, in a calmer or rougher ſea, we can give more or leſs exerciſe and ſickneſs; exciting only a ſimple nauſea, or increaſing it to vomiting, and continuing it a longer or ſhorter time, according to the nature of the diſeaſe, and as the condition of the ſick will allow. In the view of all this it ſeems to have been, that the antients were ſo very particular in their rules about ſailing. It is familiar with me to adviſe going out in a boat, an hour or two in the tide, frequently.

As the horror of dying at ſea is a great diſcouragement, I have always contrived the voyage ſo, that if the ſick do not agree with a ſea life, or death is apprehended, they may be at land, or have time to return, before a bad accident, or a bad event ſhall happen.

Some diſeaſes are peculiar to a certain period of life, which happily got over there is uſually little danger afterwards. This is particularly true of a conſumption. Perhaps it might not be an uſeleſs precaution, for thoſe of families where ſuch diſeaſes have been remarkably fatal, to purſue for a ſeaſon, at a proper time, a ſea life, in order to prevent a like cataſtrophe. I once directed it in this view, and with the deſired effect.

Sea remedies were in frequent uſe among the ancients, ſailing, and ſalt, and ſea water, in different forms, and for divers purpoſes; bathing and ſwimming in the ſea; rolling in the ſand and ſweating in it; and living in maritime places, and upon ſuch things as the ſea affords. The conſumptive are directed to go from a drier ſituation to that which is moiſt, and from a moiſt to one that is dry. Whether, where I have opportunity to obſerve, an exceſs of moiſture or drineſs cauſeth

or

or increaſeth the diſeaſe I am not able to determine, the general temperature as to theſe being ſo equal, and few inland places are leſs expoſed to ſevere cold. Of what importance changes of air are in theſe reſpects with us, others perhaps know better. I have one fixed opinion, that ſomething more than ſimple moiſture or drineſs, as they affect the lungs immediately, is neceſſary to render ſuch changes more effectual to a cure, than experience has yet proved them to be. If any benefit is expected from them in our iſland and climate at land, I would, where a long voyage is diſagreeable, adviſe to live on a dry elevated ſhore; to ride a great deal, and cloſe by the ſea; eſpecially during the flowing tide; to be frequently among the rocks; and to ſail every day, in order to breathe as much as poſſible in the vapour or ſpray, that the lungs may be therewith frequently moiſtned. Something more than mere moiſture, I'll venture to ſuppoſe, may be thus communicated to the lungs; ſomething perhaps not unſuitable to their nature, and preſent morbid ſtate. In ſuch an air, at leaſt, they will live as ſafe and eaſy as in dry inland places, which are often made choice

of; and where, with concern, I have always obſerved they almoſt all die. Sea air is found to contribute much to that ſoundneſs of lungs which preſerves from phthiſical diſorders [a].

Under a method of this kind a milk diet, when it is found to agree, will properly take place. This too was a chief practice, perhaps with more ſucceſs than now, of the ancients; who alike attentive to circumſtances of conſtitution, and of the lungs, endeavoured to cure the ulcerations by remedies both external and internal. Milk upon this intention was in high eſteem, eſpecially that of Stabiæ; where the country, from its ſituation and ſoil, abounded with many plants of very healing

[a] Inter innumeras mulieres, quæ victum quotidie eruendis conchis ad littora quæritant, vix unam invenies cujus putridi ſunt dentes; contra autem firmæ ſunt plerumque gingivæ, pulmones ſani, tuſſique ſcorbutica liberi. Idque præcipue ipſis inde contigit, quod aer ſalinis undique particulis, e maris ſuperficie effluentibus, vel potius ab undarum flictu eliſis, abundat. Ruſſel *de uſu aquæ marinæ*, p. 76. A like obſervation I have made on a dry rocky coaſt, where the inhabitants are often in the ſea, and live in a freſh ſea air, and eat ſhell-fiſh; and among them a conſumption is rare. In an inland country not many miles diſtant, and the ſoil generally dry, the diſeaſe is frequent.

virtues.

virtues. To this place the conſumptive were ſent, not only on account of the excellency of the milk, but likewiſe of the vapour and exhalations, raiſed from the ſea on one hand, and Veſuvius on the other [b].

What is truly indicated in a diſeaſe we ought diſtinctly to know, and to every indication to have a ſpecial regard, or there is great likelihood we ſhall fall ſhort of a cure. When we endeavour to cure a conſumption

[b] The mons lactarius of Caſſiodorus is thought to have been here; a place in former times of much reſort, and celebrated, in very different periods, for the ſalubrity of air, and great abundance of rich milk; which, from the nature of the herbage, was found ſo medicinal and reſtorative. On the occaſion of one Davus in a conſumption going there he thus writes: Huic ferociſſimæ paſſioni beneficium montis illius divina tribuerunt: ubi aeris ſalubritas cum pinguis arvi fœcunditate conſentiens, herbas producit dulciſſimâ qualitate conditas; quarum paſtu vaccarum herba ſaginata lac tanta ſalubritate conficit, ut quibus medicorum tot conſilia neſciunt prodeſſe, ſolus videatur potus ille præſtare: reddens priſtino ordine reſolutam paſſionibus vim naturæ. Replet membra vacuata, vires effœtas inſtaurat, et fomento quodam reparabili ægris ita ſubvenit, quemadmodum ſomnus labore fatigatis. Caſſiod. lib. xi. *variar.* epiſt. 10.— Baccius likewiſe: Neapolitani medici pro ultimo refugio ægros phthiſicos, et qui ſanguinem exſpuunt, vel ejusmodi thoracis ulcera, et alia vitia, patiuntur, ad Tabeas mittunt

by remedies that reſpect the habit only, we ſatisfy one indication only, while another, no leſs important perhaps, demands as much our care. With equal propriety might it be attempted to cure a ſinous, ſordid, or other bad ulcer, by a general, or pretended ſpecific method, without the aſſiſtance of the hand, or a ſuitable local application. An ulcer is the ſame every where, and the ſame topical remedies, adapted to the nature and

cum ſucceſſu adeo ſalubri, ut ſint qui totam in iis degant vitam. *De thermis*, lib. iv. Later inſtances ſtill there are of ſome who went thither with eminent ſucceſs.

Milk is often drank with us under great diſadvantages, either where there is no real fitneſs of air, or in mooriſh mountainous places, where the frequent fogs, and natural wetneſs of the grounds, cauſe, even in ſummer, a cold and moiſt atmoſphere; than which nothing can be more hurtful to the lungs. Fit places, in all reſpects oppoſite to theſe, may be found on ſea coaſts, as Stabiæ was; and the paſture might be improved, by propagating in plenty, the whole tribe of healing plants, agreeably to a hint given for this purpoſe by Galen. I have been the more particular here, in order to ſhew, as a matter of curioſity, the conditions of a place concerning which I find ſo much ſaid; and becauſe likewiſe, the practice in conſnmptions has, at all times, turned ſo much upon the proper uſe of milk, and a right choice of air.

ſitu-

ſituation of the part, if they are of uſe at all, are every where equally neceſſary. To correct, if poſſible, the vice of the fluids, and even of the part principally affected, is, by all the moſt appropriated internal methods, daily eſſayed. The diſeaſed ſtate of the lungs, weak and waſted, broken or eroded, inflamed and obſtructed, as to any application that might be made to them externally, ſeems to be altogether neglected. May not the want of attention to ſo material a circumſtance, be a great cauſe of the want of ſucceſs ſo often in a conſumption?

But however uſeful, when rightly contrived, applications made to the lungs externally may be, the diſadvantages are obvious, and not eaſily remedied. From the great delicacy of the parts, and the qualities of the ſubſtances employed, they will to many be too heating, irritating, or relaxing; and thoſe of greateſt efficacy are dangerous. Beſides, ſuch a conſtant uſe of them as is neceſſary few will ſubmit to, or indeed can bear; which is the reaſon chiefly, I believe, they are now fallen ſo much into diſuſe, and will always remain. Nature, unleſs I am deceived in my obſervation, has provided in the

the vapour or ſpray at ſea, all that can be propoſed by them; and all the good is obtained without the leaſt uneaſineſs to the ſick, hazard in the application, or the neceſſity of a troubleſome apparatus.

CHAP.

CHAP. VI.

Objections.

THE firſt and moſt obvious Objection againſt going to ſea, is the danger of it. Of an equal number it will be found perhaps, that as many die of epidemical and other diſtempers, and by accidents, at land, as at ſea; where the air and exerciſe, by giving a ſtrong appetite, and ſpirits, and higher health, are a great preſervative againſt diſeaſes. A life at ſea is very little productive, ſays Ramazzini, of chronical Ills[a]. Moſt ſeafaring people periſh through indiſcretion; habitual intemperance perhaps, violent and often unneceſſary labour, incautiouſly expoſing themſelves to heat and cold, the fatal effects of which are attributed to the climate, or a ſea life. Hence indeed the cauſes of acute diſeaſes among them, and why not many ſeafaring people are long lived. But of thoſe who have reſolu-

[a] Navis non eſt locus ad alendos chronicos morbos. *De morbis artificum*, cap. x. Supplement.

tion to preſerve themſelves from ſuch exceſſes, and hurtful irregularities, few die, and thoſe who go to ſea on account of health, are of neceſſity reſtrained from them.

But that terror which ariſes from the apprehenſion of danger, is many times a principal means of cure. In diſeaſes all emotions are directed to be ſuppreſſed, and carefully guarded againſt: but the great alterations brought about, ſometimes inſtantly, by ſudden affections of the mind, ſhew that theſe, excited with judgment and addreſs, may be employed to very ſalutary purpoſes in diſeaſes of the body. They cauſe wonderful revolutions; and will remove, for a ſeaſon at leaſt, the moſt painful affections of the body. Intermittents have been cured by a fright; ſome by it have recovered from a mania. Two perſons, I almoſt deſpaired of, were, upon accidents, cauſing great fear and concern, all at once freed from a tedious obſtinate diarrhœa, after every method had been tried in vain. Whatever it is owing to, change of air, the ſickneſs, and high exerciſe, dread of danger, or amuſement, giving a different turn to the mind and ſpirits,

ſpirits, this is certain, that the ſick feel ſoon an alleviation of their diſtemper, and the ſymptoms altogether or in a good meaſure ceaſe.

The hardſhips of a ſea life, it is objected to this practice, the weak, ſickly, and delicate are not able to undergo; and, with ſeeming reaſon, has the ſafety of it, in this reſpect alſo, been greatly doubted.

The ſame prejudice deterred me at firſt from adviſing to ſail in particular caſes; and, regarding appearances only, might ſtill have continued, had not repeated trials fully convinced me, that thoſe in circumſtances of great debility will bear eaſily this exerciſe, when they can ſuffer no other, and be much cheared and ſtrengthened thereby[b]. Nay that the ſick expoſe themſelves, with caution, to moderate hardſhips, ariſing from the weather and motion of the ſhip, will neither be uſeleſs I know, nor dangerous. In the worſt

[b] Navi autem vehi conducit debilibus; ſi placido navis feratur motu miram alacritatem, perſpiratione aucta, ſolet excitare, famem augere, ingeſtorum digeſtionem promovere. Van Swieten *Comment.* vol. i. p. 34.— Multum enim virium adjicit hæc navigatio (cymba molli et delicata) et corpora implet. Foreſt. *Obſ.* liii. lib. xvi.

ſeaſons

ſeaſons and weather they, very ſenſibly ſometimes, received moſt benefit.

In a habit of ſpitting of blood living at ſea is no leſs ſuſpected; leſt thereby, from the great ſickneſs or exerciſe, the rupture of the veſſel, and conſequently hæmorrhage, ſhould be increaſed, and the diſeaſe rendered ſuddenly mortal.

But the greateſt danger in this diſeaſe, is not from the ſimple rupture of ſome ſmall blood-veſſel perhaps, which for moſt part very ſoon of itſelf agglutinates; nor is ſpitting of blood always from this cauſe: and, without any reaſoning, it is enough that vomiting is often practiſed in this very formidable appearance, and other hæmorrhages, with much advantage. From my own experience of it in the caſe, I have no doubt either as to the ſafety of going to ſea, or the benefit that will accrue from it.

A ſea life is judged ſtill very improper, becauſe of ſome ſuppoſed unwholeſomeneſs in the air; it being frequently obſerved that the ſick at ſea, in very deplorable circumſtances, recover ſurprizingly, in a very ſhort time, when carried to land; whence the greater wholeſomeneſs of air at land is inferred,

ferred, and the neceſſity of it in order to a cure.

The ſame effect likewiſe I have uſually obſerved, on the ſick at land going to ſea. It is not the pure natural air, but the corruption of it, that is the cauſe of worſe health, and diſeaſes at ſea. This is evident from the happy proviſion made againſt it, by the late invented machines to draw out foul air; by which large crews have been preſerved extremely healthy, in very long voyages. And ſailors on board our merchantmen are generally free from the diſtempers incident to thoſe in more crouded and leſs cleanly circumſtancs at ſea; particularly the ſcurvy; which, by the common ſpecifics, freſh air, and proper diet, may be ſucceſsfully cured any where.

The ſcurvy is the grand diſeaſe of ſea-faring people, and by authors frequently attributed to their living ſo much in a ſalt atmoſphere; which I believe that at ſea to be, more or leſs, in the ſpray and vapour, at all times: nor has an opinion obtained more univerſally, than that the ſcurvy is the product of ſea ſalt.

Many

Many diſeaſes I can imagine to be produced by the marine ſalt rather than the ſcurvy; ſuch as rigidity of the ſolids, fevers, and inflammations, blotches externally, and various kinds of eruptions. But acid of ſalt, and ſea water, are given familiarly in it. The general cauſes of the ſcurvy are now more certainly known to be bad air, bad diet, moiſture eſpecially, joined to heat or cold, and want of vegetables. Now theſe are not peculiar to the ſea, or do not every where there equally and conſtantly prevail, but are accidental, and may be eaſily prevented or avoided. In camps and garriſons, where often the diſeaſe rages in all its malignity, thoſe of condition, as well as in fleets, are ſeldom or to a high degree invaded by it. Better diet, and lodging, and warmer clothing, and being leſs expoſed to hard duty, preſerve them from it. See Lind *on the ſcurvy*.

From the circumſtance of trees not growing near the ſea, or not thriving, it has been concluded that ſea air is unwholeſome.

Lord Bacon, in his *hiſtoria ventorum*, takes particular notice of the bending of trees on the ſhore, *maris auras quaſi averſantes*; but imputes

imputes it, and juſtly, I think, to the ponderoſity of it, not to any malignant quality in it. The like bending, and a ſtunted growth, we obſerve in trees very remote from all marine influences, for in no expoſed ſituation will they grow. In order to raiſe trees ſucceſsfully, the ſoil, air, or extraordinary culture, are not ſo much to be regarded as good ſhelter, and with this they will grow any where: hence the reaſon and neceſſity of planting in clumps, thickets, and foreſt-ways, in our boiſterous climate.

Nor is it a proof of the unwholeſomeneſs of ſea air, that the inhabitants of ſea coaſts are remarkably ſometimes ſubject to ſcurvy, rheums, conſumption, and other diſtempers.

However true this, it ſeems to reſpect only ſituations on a low boggy ſhore, where the air is cold and moiſt, and liable to fogs, and foul exhalations; or too much expoſed to piercing winds; by all which the kindly nature of ſea air is deſtroyed. Here too it is probable they live much on fiſh ſalted or dried, and drink bad water. From ſuch cauſes ſuch diſeaſes will, every where, naturally be produced. On a moderately ele-

vated dry rocky coaſt, expoſed to the warmer points, they are ſeldom found to prevail.

To certain hurtful effluvia, or a noxious quality in marine ſalt, which makes ſea air, we are told, as well as its waters, unwholeſome, is the ſuppoſed malignity ſaid to be owing in the ſea; by this notion repreſented as a continual ſource of poiſonous exhalation, and ſalt unfriendly to the human conſtitution.

That ſea ſalt may be uſed in great quantity, without hurt, no one in the leaſt acquainted with the manner of living amongſt a great part of mankind can be ignorant. The lower kind of people, who live moſtly on ſalted meats, are remarkably ſtrong, healthy, and prolific. In many places the water of the country is ſo ſalt that it proves purgative to ſtrangers: yet the vulgar, who uſe it always, and from cuſtom like it, are healthy, and ſubject to no peculiar diſtempers from this cauſe.

Without ſomething more hurtful concurring, ſalt is, in common uſe, for many good purpoſes, a ſafe and a neceſſary principle. And here a practical obſervation may be taken notice of, very uſeful, I am perſuaded, to valetudinarians,

rians, and ſuch as ſtudiouſly obſerve too great exactneſs in diet; which, eſpecially a habit of low living, enjoined to younger ſubjects, I have often known to be the cauſe of ſingular delicacy, and of death, long before they arrived at the more advanced ſtages of life. Experience ſhews that thoſe who abſtain from bread, which contains a ſubtle acid, from ſalt in their food, from acids, pickles, and wine, living on nothing but inſipid nutrients, are ſubject to continual ailments; and more liable to ſcurvy, coſtiveneſs, colds, rheumatiſm, many chronical diſeaſes, and obſtructions of the bowels, than even thoſe who uſe theſe things in exceſs. Salt is the balſam of the body, and uſed not more on account of the taſte it gives, than to preſerve the blood and humours from corruption [c].

Whether ſea air is really, in its nature, leſs ſalutary, is beſt known from its effects. A well-choſen ſituation near the ſea, has not more advantages in point of pleaſure and convenience, than it is obſerved to be truly healthful; ſo that many places the moſt noted, both in ancient and modern times, for the

[c] Fred. Hoffman opera, tom. vi. p. 112. *Diſſert. de ſalium morboſorum generatione in corpore humano.*

ſalubrity of air, are on ſea coaſts. The wholeſome influence of ſea air is in nothing ſo ſenſibly perceived as in vegetable life, which, by the blowing of ſea winds from the ſouth, is mightily promoted; and thoſe evils removed that are hurtful and deſtructive to it. South winds, on the contrary, from the land, are many times productive of diſeaſes; and in ſome regions a ſtated cauſe and preſage of mortal and unhealthy ſeaſons.

Ariſtotle's obſervation is no leſs true than obvious, that the inhabitants of marſhy countries are of a ſleepy diſpoſition, and have a pale aſpect; while thoſe that live at ſea are well coloured, though amidſt the waters. No where indeed is there to be found a more healthy, active, vigorous race than ſea-faring people. In all caſes, ſuppoſed curable, wherein I have recommended living at ſea as a remedy, and it was duly complied with, the ſick, if the diſeaſe was not altogether cured by it, returned always with more health; and greatly improved in fleſh, ſtrength, and complexion.

CHAP.

CHAP. VII.

Sailing accommodated to the diſtempers of Great Britain.

THE natural conſtitution of the diſeaſes of a place or country is according to the general conſtitution, and more remarkable changes of air, which depend again upon the ſoil and climate. The general conſtitution of the air of Great Britain is cold and moiſt, the weather conſtantly varying, often turbulent, and in extremes. Laxity of the ſolids, a languid and irregular circulation of the fluids, and a retention of humours, are the certain and univerſal conſequences. The diſeaſes ariſing from ſuch a ſtate of the ſolids, and diſpoſition of the fluids, are tenderneſs or a valetudinary ſtate, rheums, glandular obſtructions, plethora's of different kinds: vapours in all degrees of it, from a low-ſpirited illneſs to the higheſt nervous diſtemper, conſumption, and other affections of the lungs; and fevers of the ſlow, depreſſed, hectic, irregular, in-

termittent kind. Of theſe ſo far as coincides with the preſent purpoſe.

Tenderneſs.

This conſtitution of body is an habitual want of health, from cauſes not well known, or not enquired into. Thinneſs or want of fleſh often attends a valetudinary ſtate. Under this thinneſs many, eſpecially younger ſubjects, feel or complain of no real diſorder. Others are continually ailing, liable to colds, tooth-achs, ſudden feveriſh fits, and fits of looſeneſs; and all their illneſſes are very ſmart. Or they are pale and languid, and have ſigns of a watery colluvies; their ſkin is white and ſmooth; their hair ſoft, thin, and lank; and teeth bad. The blood is ſometimes florid, watery, and reſolved; at other times has in it a conſiderable fizineſs.

Long tenderneſs or waſting, without any ſenſible cauſe, in the beginning of life; not yielding to ordinary remedies, and threatening ſome great and formal diſtemper, I have always had in view, in the trials I purpoſed to make of living at ſea. The ſingular change of air, and as ſingular exerciſe, are able to produce great alterations of the humours,

humours, and ſtrengthen mightily the whole frame. It is a common obſervation that raw, puny, ſlender boys going to ſea, become in two or three years big, luſty, and ſtrong.

Scurvy.

There is a ſpecies of ſcurvy ſo univerſal that few perhaps are altogether free from it. Diſtinguiſhed from the true ſcurvy, which conſiſts in a diſſolved ſtate of blood, it appears to be a lymphaticdiſorder; afoulneſs,acrimony, or other vice of the thinner fluids. Among the many diſeaſes ſaid to ariſe from this impurity of juices, a head-ach is mentioned, and a colic, both of a very obſtinate chronical nature; and often it terminates in jaundice, and a dropſy. In all theſe, and a leproſy, the higheſt degree of ſcorbutic acrimony, a cancer excepted, ſailing and a life at ſea are directed as a cure [a].

[a] Aretæus *de curat. cephalææ.* Peregre proficiſcatur ægrotus in regiones calidiores ex frigidioribus, et in ſicciores ex humidioribus, confert et navigatio, et in mari vitæ traductio.

Alex. Trallian. lib. x. *de colico affectu ex frigido humore.* Motus et omnis exercitatio conferunt, ſive pedibus, ſive per equum, ſive etiam navigio corpus

In the dropſy its uſe ſeems more particularly to be inſiſted on. "It is certain", ſays Dr. Towne, "that in a beginning dropſy no-"thing conduceth more toward recovery "than exerciſe and change of air, no kind of "exerciſe more than ſailing, and no air more "than ſea air. Let me therefore exhort all "ſuch whoſe circumſtances will admit of it, "to leave the iſland on the firſt approach of "this diſtemper, and remove for ſome time to "England [b]."

One in a dropſy, not only his face, hands, and feet, but his belly ſwelled, was given over as incurable. He went out to ſea ſome miles in a boat, which made him vomit. After the vomiting he uſed exerciſe, and recovered [c].

If we conſider the exerciſe, the revulſion in vomiting, and evacuations it ſometimes promotes,

movere velint.—— Tum adhibenda longa navigatio. Cælius.

Cælius Aurel. cap. *de aurigine.* Erit præterea, perſeverante paſſione, etiam longa navigatione curanda.

Aretæus *de curat. elephantis.* Vita in aquis diu ducenda eſt, et mare et navigatio conferunt.

[b] *Account of the diſeaſes of the Weſt-Indies*, chap. of the dropſy: and to the ſame purpoſe Cælius Aurel. cap. *de hydrope.*

[c] Foreſti *ſchol.* ad obſ. xxxii. lib. xix.

promotes, there does not ſeem to be, after tapping, a more proper effectual means to prevent the collecting of the water than ſailing [d].

Though not in place, I ſhall mention it here that it was held of uſe in diſorders affecting the kidneys [e].

Vapours.

If we ſuppoſe a want of blood, an effeteneſs of it, and a languid circulation, in the remoter veſſels eſpecially, exciting an undue oſcillation of the ſolids, or a ſpaſmodic diſpoſition of them, we ſhall perhaps form ſome idea of a very various and perplexing diſtemper, in its more immediate cauſes.

The *ſtomachica paſſio* of the ancients bears the neareſt reſemblance, in many things, to our great modern national diſtemper vapours; and in this ſailing was a remedy with them; as well as in ſeveral diſorders that attend the low-ſpirited illneſs, or have an

[d] Perfecta humoris detractione——ægrotantes præterea navicula exerceri hortamur. Cælius Aurel. cap. *de hydrope.*

[e] Dieta vero, inunctio, navigatio, et vita in mari acta, omnia renum affectibus remedia ſunt. Aretæus *de curat. calculorum et ulcerum in renibus.*

affinity

affinity with it; ſuch as pains of the ſtomach, coldneſs and inflation of it, want of digeſtion, loſs of appetite, or the appetite depraved, and bile or phlegm offending. In diſeaſes likewiſe wherein they judged hellebore proper, it was recommended; the hypochondriac was the principal; and particularly in thoſe higher nervous diſtempers that are often the conſequence of low ſpirits, or a ſcorbutic habit, and to which numbers, from conſtitution or exceſſes, are miſerably ſubject, epilepſy, apoplexy, palſy, and maniacal affections [f].

[f] To avoid as much as poſſible references, I ſhall give only a few quotations that ſeem moſt material.

Si vero pituitâ ſtomachus impletur utilis navigatio—Moleſtius eſt ſi ſtomachus bile vitioſus eſt. Neceſſaria geſtatio, navigatio, et, ſi fieri poteſt, ex nauſea vomitus. Celſ. lib. iv. cap. 5.

In parvis vero navibus et magnis ferri, confert lepræ et hydropiſi, et apoplexiæ, et frigiditati ſtomachi, et ejus inflationi; quoniam quum coram littoribus maris fuerit, commovebitur ei vomitus, deinde quieſcet, et conferet ſtomacho: ſed navibus ferri in mare altum, eſt fortius in removendo ægritudines quas nominavimus: propterea quod ſecundum animam lætitia et triſtitia diverſificantur; et ſecundum membra nutrientia, eorum vero exercitium corporis exercitium eſt ſequens. Avicenna, lib. i. fen. 1. doct. 2.

In

In certain circumſtances of the vapouriſh diſtemper, and ſome diſeaſes that have a connection with it, a ſtrong and laſting revulſion, or revolution made in the humours or ſpirits becomes neceſſary: for the cauſe, even when it affects the firſt paſſages, which it often remarkably does, ſeems beyond the reach of common emetics. Many, at leaſt, have I known, without any other advantage than a ſhort relief, by a frequent repetition, tired into a perfect abhorrence of them. The ſea ſickneſs can be ſuſtained with ſafety hours, days, weeks, a longer time by far than we dare attempt to promote vomiting, or a nauſea, by any medicine thrown into the ſtomach, and affecting it immediately. This muſt have a mighty effect in all ſuch diſeaſes whoſe cauſes are moſt remotely ſeated.

Valentiora (geſtationum genera, in alto mari navi,) vero his conveniunt qui gravium morborum initia ſic ſentiunt, ut adhuc febre vacent, (quod et in tabe, et in ſtomachi vitiis, et cum aqua cutim ſubiit, et interdum in morbo regio fit,) aut alii quidam morbi, qualis comitialis, qualis inſania eſt, ſine febre, quamvis diu manent. Celſ. lib. ii. c. 15.

——quin et terra marique peregrinari, multum juvat. Mead *monita et præcepta med.* cap. *de inſania.*

Glandular

Glandular Obſtruction.

The extent of glandular obſtruction may be conceived from the infinite number of glands of various orders, every where, through the whole body. It is moſt conſpicuous in the evil, which is a diſeaſe more frequent than is commonly ſuſpected; for a ſcrophulous indiſpoſition prevails often when there is no viſible tumor, but affecting ſome remoter order of glands, or inward part, is the cauſe of many diſorders not eaſily underſtood. A glandular ſwelling outwardly ſhews at laſt perhaps the nature of the inward diſtemper, which may be ſenſibly relieved by a ſuppuration externally. Internally it is ſeated chiefly in the meſentery and lungs; and ends frequently in a hectic waſting fever, and pulmonary conſumption.

Tenderneſs, ſcurvy, vapours, and the evil ſeem to have the ſame common cauſes: therefore it is that they are ſo common to one and the ſame perſon, and change ſo often the one into the other. Thus tenderneſs may be carried off by a ſcorbutic eruption. A ſcorbutic ulcer dried up has cauſed a herpes. A herpes or other foulneſs of the ſkin indiſ-

cretely repelled, will bring on tubercles, and glandular ſwellings, topical inflammations, extreme languiſhing, or an oppreſſive low-ſpirited illneſs.

Rheums.

This is another claſs of diſeaſes to which ſailing and ſea air have been appropriated, though in moſt caſes of rheums they will be thought unneceſſary and inexpedient, as other and very effectual methods are well known. Maritime places, Oribaſius and Ætius obſerve, are proper for thoſe who are troubled with any kind of rheum, eſpecially of the cold kind; ſea air being warmer than that of inland places; or thoſe labouring under nervous pains, or pains of the joints, and when the nerves are affected by ſympathy [g]. Celſus in pains of the nerves, or a rheuma-

[g] Loca vero maritima hydropicis et quibus quævis defluxio moleſta eſt accommodata ſunt.—Sed proſunt etiam omnibus iis qui nervorum et articulorum doloribus torquentur. Mediterranea ſunt maritimis frigidiora. Oribaſ. *collect. med.* lib. ix. c. 11.——Marinus vero (aer) fluidis affectionibus, et præſertim frigidioribus, utilis eſt, et nervis per conſenſum affectis. Ætius *tetrab.* i. ſerm. iii. c. 162.

tiſm,

tiſm, adviſes vehement geſtation, or ſailing, which in other pains is hurtful [h].

Under the head of rheums may be comprehended all thoſe diſorders called colds, more particularly as they affect the lungs; by which, in a ſimple cough, is very often laid the foundation of a conſumption: and in all coughs, according to the laſt cited author, a long voyage, and living near the ſea, are uſeful [i].

Aſthma.

In froſt, or the wind ſhifting to the eaſt, ſome are grievouſly aſthmatic, often with fever, from a conſtriction of the air veſſels, and conſequent inflammation. In moiſt weather the lungs are filled with a viſcid tenacious phlegm, which hinders the free ingreſs and egreſs of the air, cauſing great difficulty in breathing, and labour in coughing. Some cannot breathe with eaſe, but in a free open country air, and more elevated ſituations.

[h] Atque in ipſo potiſſimum dolore utendum vehementi geſtatione eſt, quod in aliis doloribus peſſimum eſt. Celſ. lib. iii. c. 27.

[i] Utilis etiam in omni tuſſi eſt peregrinatio, navigatio longa, loca maritima. Id. lib. iv. c. 4. ſect. 4.

Others

Others live eaſieſt in the groſs air of cities, and thick weather. Many are worſe in ſummer than in winter; and an aſthma is frequently by conſent from the ſtomach, or ſome other bowel affected.

From the diverſity of ſtructure of the veſſels of the lungs, it is, principally, that different aſthmatics require ſuch oppoſite airs to live in, and ſometimes ſeemingly improper: for they may be too rigid and ſtrait, or too lax, or of a more delicate texture, and endowed with greater ſenſibility. So that upon diſſection a ſenſible vice of the lungs is not always to be diſcovered. In the worſt caſes they are, to view, very often in all reſpects ſound, and without any morbid appearance.

As the cauſes of an aſthma depend moſt frequently on the air, and particular conformation of the parts, we underſtand why thoſe afflicted with it find no laſting benefit from any remedy, and but few remedies afford any benefit at all? Only therefore from an air rightly conſtituted as to properties, or qualities, is the moſt certain relief to be found; and to this the aſthmatic muſt at laſt have recourſe. Sea air is ſeldom

tried

tried with deſign. To accommodate it to particular caſes, it muſt be remembred that, beſides its greater action, it is of a kindly reſolvent detergent nature; and the ſickneſs at ſea may be of great uſe.

In an aſthma Cælius adviſes living much at ſea, or in places near the ſea [k]. "A pa-
"tient ill of an aſthma, tending to a con-
"ſumption, having uſed many remedies in
"vain, went to Neptunum. While he lives
"here, and breathes the ſea air, he is eaſier,
"and finds himſelf almoſt well. But if,
"leaving this, he removes only to the neigh-
"bouring country, preſently he is ſeverely
"ſeized with his aſthma, and other ſymptoms,
"and continues ſo until he viſit again the
"ſea air [l]."

Conſumption.

A conſumption is to be diſtinguiſhed as proceeding from knots and other hardneſſes of the lungs; or from ulceration; from rheums likewiſe; and the ſpitting of ſaltiſh or

[k] Utilis denique maritima, et plurima mare tenus converſatio. Cælius Aurel. cap. *de aſthmate.*

[l] Baglivi *de fibra motrice et morboſa*, cap. xi. cui titulus *de mutando aere in longis et difficilibus morbis.*

ſweetiſh

ſweetiſh phlegm; by which the ſubſtance of the lungs, and of the whole body is conſumed without ulceration; which, if at all, does not happen till the laſt. This may be called a pituitous conſumption. In whatever form it ſubſiſts, it is for the moſt part ſooner or later mortal.

We often indeed meet with relations of a conſumption cured, and remedies that are ſaid to have cured it, which, from their ſucceſs ſometimes, if they contributed any ways to a cure, or a confident recommendation, are apt to impoſe, and procure a belief of their efficacy in general; and too readily are the ſick, I daily obſerve, diſpoſed to place a confidence in them. It may be of uſe to undeceive ſuch: and the more, as a fond conceit of certain popular remedies miſleads frequently into a neglect or a diſtruſt of means more rational, and more effectual perhaps; but to which it muſt be owned, cuſtom, which authoriſes every trifle, and a more delicate practice, have not yet ſo much vouchſafed their ſanction.

Some plain remarks in practice fall naturally in the way here; which in ſeveral particulars, not always attended to, may

perhaps illuſtrate more the diſtemper, and ſhew under what circumſtances theſe great affections, obſtruction and ulceration of the lungs, are moſt frequently and ſucceſsfully remedied, and by what methods.

The firſt is happily, and not unfrequently, remedied when it comes on ſuddenly, with more acute ſymptoms, fever, ſickneſs, vehement cough, and waſting; by which early warning is given of the danger; and, by proper methods, the fever may be ſubdued, and fluxion prevented. This I have ſometimes met with in an epidemical way, when a good many, at the ſame time under theſe appearances, were juſt falling into a conſumption. Leſs alarming ſymptoms at firſt might have betrayed into a confirmed phthiſis; and in ſome they ended in purulent ſpitting: but as the conſtitution was good before, and the habit not much impaired by a long continuance of the diſeaſe, they recovered. The reaſons and uſe of bleeding, bliſtering, ſometimes vomiting, mild diaphoretics with nitre, bathing the extremities, and gentle purging, are obvious.

Ulceration of the lungs is frequently cured too when it is brought on by abſceſſes from accidental

accidental cauſes, ſuch as fever, external injuries, or a ſingular encyſted tumor ſuppurating. Many inſtances of cures here I can affirm I have ſeen: few I think die, provided there is no complication of previous bad habit, a phthiſical diſpoſition, or a wrong conformation of parts. Nor is the recovery owing to the pompouſneſs or multiplicity of remedies: nature, I know it, duly ſupported and regulated, will in this caſe of herſelf do a great deal. A moderate uſe of the natural balſams, ſuch as agree beſt, is generally good; and if nothing forbid, the bark, eſpecially toward the end; to prevent colliquation, ſtrengthen the whole frame now much weakened, and confirm the tone of the part affected. But diet wholly vegetable, with much milk, has no ſmall ſhare in the cure; and, in ſome extraordinary caſes, the merit of a cure I have attributed almoſt wholly to it.

A lady, habitually ſubject to ſuch ailments, complained of languor, and pain of the ſtomach; her pulſe ſcarcely diſcovering any ſigns of fever; ſhe was treated accordingly. Without any preceding cough, ſtitch, pain, weight, or ſoreneſs of her breaſt, or

difficulty in breathing, that could give a juſt ſuſpicion of it, an abſceſs at laſt diſcovered itſelf in the lungs. She ſpit matter in great quantity, green and intolerably fœtid; and was ſo emaciated, that ſhe had truly the appearance, more than I ever ſaw, of a ſkeleton covered with ſkin, brown and parched. Her recovery was more remarkable, that the remedies ſhe uſed, ſetting aſide diet, were inconſiderable; for ſhe was really long time, through weakneſs, not a ſubject for medicines.

A lady, after a feveriſh indiſpoſition of ſome months, attended with ſevere pains of the ſtomach, great mobility of ſpirits, and an highly irritable ſtate of nerves, but without cough or difficulty in breathing, had an abſceſs of the lungs; and, for ſeveral weeks, together with matter, ſpit up, in large quantity, pure bile, thick, inſufferably bitter, and dying the tongue, mouth, and lips of a deep yellow, or almoſt a brown colour. This diſcharge ceaſing ſhe continued to ſpit matter more or leſs a long time. Little regard was had in this cure to common remedies called pectoral: thoſe things that reſpected the fever

fever were chiefly required and uſeful; the diet was butter-milk.

Pus in the lungs, not accompanied with plainer ſigns that intimate the lungs to be affected, is very hardly diſcoverable. Many die of it, while the cauſe is not known: diſſections ſhew this. In the two hiſtories laſt related, the complaints were chiefly nervous, affecting moſtly the ſtomach; and by ſuch only ſometimes can the latent evil be detected. Obſtruction or corruption of any of the organs or bowels, more eſpecially the lungs, exhibit frequently appearances of this kind. A conſumption is often uſhered in by a low-ſpirited illneſs. Numbneſs, and an entire reſolution almoſt, of all the extremities I have ſometimes ſeen in the firſt ſtage. In a hiſtory to be given afterwards, we ſhall find it attended with tormenting hiccup. Once I obſerved it preceded by a ſimple mania; once by a canine appetite, ſo craving and inſatiable that the patient became delirious.

One thing to be attended to is whether the abſceſs has been contained in a cyſtis or bag. When it follows upon an extravaſation into the cellular interſtices of the lungs, this ſpreading and corrupting, inflames the parts ſooner,

and brings on a ſpeedy ſuppuration. But the humour confined within a cyſtis, affects the lungs no otherwiſe than by its preſſure; and giving no irritation, being ſhut up in an inſenſible membrane, may lie a long time concealed, before it cauſe any great labour or inflammmation of the parts; and in ſome we ſee it gives no diſturbance to the parts at all. A cure cannot be obtained, until the cyſte is entirely diſſolved, or coughed up in a courſe of time piece-meal. The ſmalleſt portion of it remaining is an extraneous body, which like the hard ſubſtance put into an iſſue, or a tent indiſcretely uſed, will be the occaſion more or leſs of irritation and fluxion, and hinder the reunion of the part. The balſams, or other ſtimulating detergents, are here, I judge, of little uſe, if not hurtful; for they cannot affect the part to which the cyſte adheres, and may by their acrimony, when much uſed, cauſe inflammation, and provoke more to coughing. Perſeverance in a proper diet keeps the parts cool and ſupple. Exerciſe and repeated vomits will help to ſeparate the cyſte, pieces of which are ſometimes brought up in vomiting: while by other methods, as they are indicated, the general

general ſtate of health is ſecured, until impediments are removed, and the part is rendered ſound.

As attended with ſome ſpecialities likewiſe, which may afford farther remarks, I ſhall give two or three hiſtories more. During the intenſe froſt, 1739, a gentleman, after a pleuriſy, with inflammation of the lungs, had an impoſthume. For many days he ſpit a great deal of matter, and became wholly and to a high degree œdematous. Notwithſtanding the long ſeverity of the ſeaſon, he recovered in the ſummer.

To facilitate the diſcharge of ſo much matter, and it was very great, I made him lie daily, at ſtated times, when it was moſt collected, in a horizontal poſition, his head, if poſſible, lower on the ſide that favoured moſt the iſſue of the matter, by which much of it was evacuated in a ſhort time, and ſome reſpite was obtained from continual vehement coughing. Bliſters on the ancles, and gentle purges, prevented a ſurcharge of the dropſical humour on the lungs.

Matter remaining long in the lungs oppreſſes and diſtends them, acquires bad qualities, and corrupts the parts more. A certain

degree of coughing is neceſſary to diſcharge it; but an inceſſant cough teaſes, heats, and exhauſts the patient to mere weakneſs, and leaves him unable to cough; and opiates, though for a time they remove the cough, retain the matter, and do equal miſchief. Betwixt theſe one is greatly embarraſſed. Anodynes, ſuch as diacodium, given frequently and freely, moderate the cough without ſuppreſſing it, as full doſes of opium do. The expedient above-mentioned I have, on ſeveral occaſions, practiſed with advantage: but caution muſt be obſerved, for the matter flows ſo much ſometimes, that they complain of being choaked almoſt.

One of a thin delicate habit contracted a cough, which continuing long, increaſed, with daily waſting. Through mere weakneſs he was at laſt fixed to his bed, was much emaciated, and under a conſtant fever ſweated conſtantly, and had a high hectic look. From theſe appearances, and his having little or no expectoration, I ſuſpected an abſceſs. A vomit was given to haſten the rupture of it. This no doubt is attended with danger; but his ſafety depended on a ſpeedy rupture, which happened a day or two

two after; and by an eaſy method he recovered.

Miſs L—— ten years of age, after a continual fever, had a ſuppuration of the lungs, with large protruſion of the ribs. The violence of the pain made her always incline to one ſide, which cauſed a conſiderable diſtortion of the ſpine, and threatned an intire loſs of ſhape. This in time was by proper methods removed: the diſeaſe of her lungs ſhe recovered from likewiſe; but without medicines, for ſhe would take none.

In ſuch caſes I preſume it is that a conſumption is ſo often ſaid to be cured. Many have ſpit up leſſer impoſthumes from time to time for years. But a great diſtinction muſt made here. This is not the conſumption that prevails moſt, that is moſt fatal: and many illneſſes we know have much the appearance of a conſumption, and are taken for it, which yet are not. Though in ſuch apoſtemations of the lungs, there is frequently a fortunate iſſue, we muſt not flatter ourſelves with equal ſucceſs, when a conſumption depends on a number of glandular ſwellings, happening from conſtitutional cauſes, or otherwiſe, in the way of a ſlow con-

congeſtion, as it is called, and afterwards ulcerating. Relief here is ſeldom ſought, till the diſeaſe has deeply fixed itſelf in the badneſs of the habit, or firmneſs of the obſtruction; and the favourable opportunity for a cure is loſt.

A conſumption is judged for the moſt part to be a diſeaſe of the ſcrophulous kind. This, as it gives a reaſon for the great obſtinacy of the diſeaſe, from the nature of it, points out at the ſame time ſomething of the cure; and ſhews likewiſe how ill appropriated and inadequate many remedies are, that have been too much boaſted, and too much, I am afraid, truſted to.

From practice we diſcover great variety in both diſeaſes, and a plain analogy. In a ſcrophula there is a material difference, according as the tumors are more or leſs benign, and attended with more or leſs inflammation. Some are ſo mild that they readily admit of reſolution, or may be brought to a pretty laudable ſuppuration, and eaſily go off. Some are more unfavourable, and with difficulty yield to any method. Others are altogether untractable. In like manner in a conſumption we ſee milder ſuppurations

of

of the lungs, from time to time, healing with ſmall care and pains; and in the intervals a cure ſeems to be obtained, and ſome do recover. So that neither in a true glandular conſumption are examples wanting of cures. But if the habit degenerate, and new cauſes concur, more glands come to be affected, and thoſe parts that have been healed remaining callous, are liable to new obſtruction and ſuppuration, and the diſeaſe at length is fatal. But ſometimes the obſtructed glands, as in a bad ſcrophula, are quite ſchirrous, or almoſt cancerous; and either never perhaps come to an abſceſs, or when broken give an ill-conditioned matter, or foul ſanious diſcharge; cauſing a malignant eroding conſumption, and eaſily communicable; melancholy inſtances of which, in a train of infection, I have ſeen.

In this kind of obſtruction of the lungs I formerly, according to the opinion of ſome, tried calomel in an alterative way. The effects were ſuch as did not at all encourage farther trials of it. When crude mercury came to be better known, and more frequently uſed, this promiſed to be more ſafe and

effectual, and when given in a proper time will certainly be ſo.

A gentleman, from cold, contracted in the ſpring a hard, dry, frequent cough, attended with conſtant fever, night ſweats, great waſting, and a meagre lurid countenance, which before was plump and ruddy. He received little benefit, as to the cough, from what was done for him at this time. In ſummer he drank goat's whey; and the fever being now much gone, he was allowed a glaſs of ſweet wine two or three times a day. By theſe he got fleſh, and ſtrength, and a better look. As the year declined he began to decline alſo; and his danger from the enſuing winter, the cough ſtill ſevere upon him, being very evident, he took the quickſilver pill. The effect was greater than I intended; for in a few days his mouth was a good deal affected. However the cough preſently went off, and he very ſoon recovered a fine complexion, and good health. Next year the cough and ſymptoms returned, not perhaps to ſuch a degree, but ſo as plainly to give apprehenſions again of danger. The pill was given with more caution, but with

with equal ſucceſs; and he has had no return of his diſeaſe ſince.

A young lady was, in autumn, ſeized with a dry cough and hiccough, which alternately and conſtantly teaſed and exhauſted her. She had alſo a pain of the ſide, ſlow fever, thirſt, foul tongue, clammy night ſweats, with loſs of appetite and ſtrength, and tendency to looſeneſs. She had grown very faſt, tall, and ſtrong, and was juſt coming to her full height. Several of her family had about the ſame age died of a conſumption. Small bleedings, iſſues, cinnabar, muſk, and afterwards a quickſilver pill every night, recovered her from a threatning illneſs, and the dangerous period is long over. Similar inſtances might have been added, in which, by a ſimilar method, formed obſtructions of the lungs were timeouſly overcome.

But when the obſtruction does not reſolve, and the lungs become ulcerated, a cure is then very uncertain, very rare. Here all the force of phyſic has been employed, and the utmoſt efforts have for the moſt part been in vain. All the common remedies I have tried with ſo little advantage any way, that my faith in them has a long time been much abated,

abated, and ſome truly ſpecious methods I have, in experience, had as little ſatisfaction from; which ſhews the great difference of ulceration here from that formerly mentioned, which is many times cured by a ſimple method, and very few remedies. Not therefore to the conſtant motion, as is ſaid, of the part, but to the bad diſpoſition of the ulcers themſelves, is owing ſo frequently the impoſſibility of conſolidating the lungs when thus broken.

So many are the contra-indications in a conſumption, that in no diſeaſe are we more perplexed, and find greater difficulty. Opiates allay the cough, but beſides the hurt they do by retaining the acrid pus, and cauſing greater infarction, they debilitate mightily, deſtroy the appetite, cauſe coſtiveneſs, and heat, and inflammation; and for the moſt part are a hurtful temporary relief only. They live as long, and upon the whole as eaſy, who do not uſe them, as thoſe that do. I do not ſpeak here of cough or conſumption from a catarrh, or eroſion. The fever indicates the bark, but this increaſes the obſtruction, and if the ſweats are checked, cauſes greater cough, looſeneſs, or hydropic ſwelling.

ſwelling. Thoſe things which dry the ulcer ſtop the expectoration, and augment the fever and waſting: the fever and waſting require humectants, which render the ulcers more ſordid, and add to the matter of colliquation. In every kind and ſtage, and to every ſymptom, a different method or medicine ſeems neceſſary. What remedy indeed ſingly, or combination of remedies, in common uſe, can ſatisfy ſo many indications as ariſe in a conſumption; in which, like certain fruits on the ſame tree, part is green, part coloured, and part fully ripe, the glands of the lungs are found in ſo many different ſtates, crude, inflamed, ſuppurated, broken; and while moreover a complicated fever, depending on theſe, inflammatory, hectic, and putrid, prevails in the body?

In mere tendencies to a conſumption, perhaps in the very beginning of it, and in the convaleſcent ſtate, riding is certainly of great uſe; but in many caſes it is plainly forbidden, nor can the ſick always bear it. The pain I often obſerved they underwent in riding, and the little benefit derived from it, made me early wiſh for ſome other geſtation, in general more ſafe, eaſy, and effectual.

The

The many diſappointments I have met with are more than enough to convince me that it comes far ſhort of the high opinion that has been formed of it, and the aſſurances given of its ſucceſs. I am not ignorant that ſome, given up to their fate, have beyond expectation recovered by it; but a few inſtances are not to be reckoned in a general eſtimate of the advantage. If it is really ſuch a ſpecifick as hath been aſſerted, whence is it that ſo many die, even after full experiment made of it? Few, I believe, periſh of a conſumption, from a neglect of this ſo much magnified exerciſe in it.

Milk, which in all ages has been ſo much celebrated, from the praiſes beſtowed upon it, and its being ſo conſtantly preſcribed, one is almoſt perſuaded to believe a ſovereign remedy, and ſufficient of itſelf for a cure. When there is no fever or head-ach, and the ſtomach is able eaſily to digeſt it into perfect nouriſhment, it is undoubtedly an excellent food, and no leſs a remedy, eſpecially in thinneſſes diſpoſing to a conſumption, and during the recovery from many diſeaſes. In former times milk was directed to be drank to ſome quarts a day. In any quantity

tity it naturally diſagrees with ſome; and but in moderate quantity I find it very often aggravates ſymptoms, or produces new ones. Butter-milk excepted, I have never, in a real phthiſis, obſerved much benefit from it.

Mild ſuppurations from time to time of the lungs, I ſaid I had obſerved healing with ſmall care and pains. There was little or no fever, except during the ſuppurations; the matter was well conditioned, bloody at times, and equably mixed; and the ulcers were probably few, if more than one, and ſmall. Here they ſeem to approach to the nature of a common abſceſs, and the morbid glands, as in a ſimple phlegmon, are more thoroughly melted down into pus. The detergent balſams are in this caſe of ſenſible benefit. But when the tumors have been of a more indurated, or higher ſcrophulous kind, as I ſuppoſe, and there is much heat, or what there is feels biting and ſharp, and of the hectic kind, moſt frequently I obſerve no effect from them at all, or ſometimes a bad one. The matter indeed may decreaſe perhaps, but it becomes thinner and leſs digeſted; the breaſt

feels tighter, and the breathing grows worſe; and bleeding cannot always be ſuſtained. And as the glands are found in very different ſtates, the hotter balſams, at the ſame time they are intended to cleanſe and digeſt, may by their heat cauſe greater fever, and diſpoſe to ſuppurate ſuch as are ſtill crude, or only inflamed, and yet capable of reſolution; which, while we endeavour to deterge thoſe already ulcerated, ought by all means to be attempted, in order to prevent greater purulence, and conſequently greater conſumption. From the vaſt numbers of thoſe that die conſumptive, after a plentiful uſe of balſamics of all kinds, we have a mortifying proof, that even medicines of this ſort are not often to be depended on.

In milder caſes of ſuppuration, the bark too may be given in ſmall quantity, as it keeps up the appetite and digeſtion, ſtrengthens the habit, and helps to conſolidate: at leaſt I have not obſerved it to do hurt. The leſs there is of fever, with the more ſafety and benefit will this remedy, ſo hurtful in other circumſtances, be made uſe of.

In cold conſumptions, whether glandular or pituitous, bleeding is plainly forbidden. Where

Where there is a good deal of inflammation, with ſizy blood, and the pulſe pretty full, it not only abates the general inflammation, and that of the parts, but by drawing off a quantity of the old heated diſeaſed fluids, makes room for new cool and ſounder juices. I have obſerved it to agree well too when the pulſe was good, though there was no general inflammatory diſpoſition, or fever that ſeemed to require it. For the lips, as in all ulcers, being always more or leſs tumid, if great pains are not taken in time by bleeding, and other fit methods, to extenuate them [m], remaining long in this ſtate, grow callous, which prevents healing, and an incurable more ſpeedily conſuming phthiſis is brought on. Or, the habit not bad, the ulcers may, without impairing health much, or proving ſoon fatal, continue a real iſſue in the lungs for life. Nor is it improbable that nature, ever careful to preſerve the individual, may ſometimes this way, as ſhe often does by an ulcer elſe-

[m] A friend of mine who underſtands well the uſe of it, believes quickſilver upon this intention to be ſafe, and that it may be often effectual.

where, throw out ſome noxious humours, which otherwiſe might ſooner deſtroy life. Many have been obſerved to live with eaſe and ſafety, many years in a conſumption. In vain, I imagine, and improperly too perhaps, is a thorough cure here attempted.

Under theſe conditions of the blood and pulſe mentioned, bleeding is of ſtill more advantage in the ſtate of tubercles, and notably helpful to reſolve the obſtructed inflamed glands, tending faſt to ſuppuration. Not the greateſt number however, few perhaps comparatively will, I am apt to think, be found proper Subjects of this operation; which, regarding duly all circumſtances, that it may, in the proſpect of a cure, do real good, and no hurt, muſt be practiſed, in moſt caſes, with very great caution and judgment. I am not conſidering it as merely palliative. If on trial of it the pulſe grows quicker, and more contracted, or thready, which it commonly is in a conſumption; or the blood is diſcovered looſe in its texture, no ſucceſs is to be expected from the method; which perſiſted in, will endanger more, by exhauſting too much

much, and diſpoſing more to colliquation. The conſumptive generally do not abound with blood, therefore little is to be taken away at once; and at a certain time, even when the ſtrength and ſpirits ſeem not to be greatly impaired, every drop of vital fluid is precious, and the loſs of it irreparable; as all the aſſimilating powers are low, and no more blood remains perhaps, than is juſt ſufficient to maintain a feeble circulation. An officious concern now, by bleeding to give relief, under ſome preſent urgency, I ſhall ſuppoſe, of ſymptoms, has cauſed ſudden coldneſs, and depreſſion, and irrecoverable weakneſs: death, under ſuch a defect of fluids, I have known oftner than once very ſoon the conſequence.

There is no ſingle remedy, commonly adviſed, of more certain benefit than iſſues: but they are beſt ſuited to the circumſtances of a beginning conſumption. Though the good effects of them, in this ſtate, were leſs evident from practice, reaſon pleads for their uſe. They are weak parts, and leſſen the impulſe upon the parts affected, which, without ſuch precaution, might thereby be brought ſooner to ſuppuration; and this is

what we are ſo ſollicitous now to prevent. When bleeding cannot be ſo freely admitted, they will ſlowly diminiſh the quantity, without impairing the ſtrength. They are very effectual in rheums, eſpecially of the head, jaws, and breaſt, which have ſome relation to a conſumption; for colds are a great cauſe of it, and very often a cough and a tooth-ach alternate. Many have grown fat on wearing an iſſue. I wiſh obſervation made it appear that they are materially uſeful in more advanced ſtages of the diſeaſe; I ſpeak always with reſpect to the event. Unleſs the body is much emaciated they can do no hurt, and may do good, as they will perhaps draw off a portion of the putrid humours, and ſo abate in ſome degree the fever, and its conſequences. Such great effects however as have been told us, we are not often to expect from them, and indeed I have not found. Some circumſtances of conſtitution too, or of the diſeaſe, may ſometimes render them more neceſſary. Iſſues made by bliſtering are beſt in cold conſtitutions. When there is heat and inflammation they ruffle exceedingly, and keep up the fever. Pea

iſſues

iſſues are eaſily borne; and a ſeton in the ſide has done conſiderable ſervice, eſpecially when pain and weight of the part pointed out this as the proper place for a drain, by removing theſe.

An early and conſtant uſe of butter-milk, more or leſs ſoured according to circumſtances, will be found moſt effectual to alleviate ſymptoms, fever, thirſt, ſweating, and looſeneſs, prevent their overbearing, and render life eaſy under them: ſeldom does it fail. It is ſufficiently nouriſhing; gives no uneaſineſs to the ſtomach; ſerves both for food and drink; and makes this laſt very little neceſſary. It is oppoſite beſides to the putrid inflammatory nature of the diſeaſe. And as the vehemence of the cough depends much on the degree of the fever, by reſtraining this, it gives great relief in that alſo. Even when there is little or no fever I ſtill prefer it; and would rather indulge the ſick a little wine to ſupport them under any lowneſs, than allow even a ſmall quantity of animal food, as what is thought, but very injudiciouſly, more nouriſhing and ſtrengthening.

Bleeding, iſſues, a prudent uſe of crude mercury, and of the natural balſams, accommodated to the kind, ſtage, and degree of the diſtemper; diet, and a ſea voyage ſeem to comprehend every thing eſſential to the cure of a glandular conſumption. Other remedies I look upon as of leſs importance. They may be occaſionally and accidentally good; but their virtues are in a low degree, and no way proportioned to the greatneſs of the malady; their effects therefore muſt be ſmall and uncertain.

As ſailing was early accounted a remedy, ſo moſt generally has it, by authors of the greateſt eminence, been held of principal uſe in a conſumption. Thus Cælius, "Geſtation is of the greateſt uſe, and a long "ſea voyage[n]." And Aretæus, "If nothing "forbid, let the ſick be carried on the ſea, "and there let him live[o]." Celſus likewiſe,

[n] Et propterea vehementer utilis navalis geſtatio, atque longa navigatio —— et omne quod dare corpori fortitudinem poteſt. Cælius Aurel. lib. ii. c. 14. *de phthiſica paſſione.*

[o] Nam ſi recte habuerit ægrotans, in mari geſtatio fieri poterit, atque ibi vitam deget. Aretæus *de curat. phthiſis.*

"If

" If it is a real phthiſis, a long ſea voyage, " if the ſtrength will bear it, is neceſſary. " If through great weakneſs this cannot be " undertaken, it is yet beſt to be carried in " a ſhip, but not far[p]." Riding, Pliny has remarked, is of the greateſt uſe in diſeaſes of the ſtomach: ſailing in a phthiſis[q]: But in the following article we ſhall find it mentioned by him, with particular circumſtances, as a practice in this diſtemper. In all kinds of conſumptions, ſays Dr. Mead, change of air is generally good, ſometimes a long ſea voyage[r]. Nor has Boerhaave omitted ſailing, as a proper means to break the abſceſſes of the lungs, and deterge them when broken[s].

A ſtrong alterative virtue in ſea air, an air duly qualified ſo as to render it a fit application to the lungs externally, and a ſingularly adapted exerciſe, all concur to-

[p] Quod ſi vera phthiſis eſt, opus eſt, ſi vires patiuntur, longa navigatione. Si id imbecilitas non finit, nave tamen, ſed non longe, vectari commodiſſimum eſt. Celſ. lib. iii. c. 23.

[q] Plin. hiſt. lib. xxviii. c. 4.

[r] Mead monita et præcepta medica. Cap. *de febribus lentis.*

[s] Boerhaavii aphoriſm. § 857, 858.

ward

ward the cure of a conſumption, in this ſimple method of ſailing.

Spitting of blood.

Spitting of blood is both the fore-runner and cauſe of a conſumption, and a ſymptom of it. Sometimes it is a diſeaſe of itſelf, when it happens in the way of mere tranſudation; and ſome are, from this cauſe, habitually ſubject to it, a great part of life, without much danger, or any conſequent diſeaſe. Tumified glands compreſſing the veſſels are often the occaſion of a rupture of them: and the blood falling into remoter branches of the wind-pipe, not being coughed up, corrupts, becomes acrid, and brings on eroſion. The exerciſe and vomiting at ſea will, I apprehend, in theſe caſes, tighten the relaxed orifices of the veſſels, make a ſtrong revulſion, and diſcharge what is extraneous in the lungs. It is directed however, when the flux is once ſtopt, or the diſeaſe become chronical. Anneus Gallio ſailed for the cure of a conſumption and ſpitting of blood, Pliny in his hiſtory informs us[t]; as does

[t] Præterea eſt alius uſus muitiplex (aquæ marinæ), principalis vero navigandi phthiſi affectis, aut ſanguinem

likewiſe

likewiſe the younger Pliny, of Zozimus his freed man, cured of a ſpitting of blood, by ſailing to Egypt, and ſtaying a long time there [v]. Celſus in this complaint adviſes living in maritime places in winter [w].

Somewhere I have met with an obſervation of an uterine flux ſuddenly reſtrained upon a voyage at ſea.

Difficult Recovery.

From the long continuance or ſeverity of a malady, the digeſtive and aſſimilating powers are impaired; and the fluids being heated, and deprived of their balmy ſpirituous parts, or acquiring vicious qualities, are rendered unfit for nutrition, and animal uſes. Hence that depravation of humours

egerentibus; ſicut proxime Anneum Gallionem feciſſe poſt conſulatum meminimus. Neque enim Ægyptus propter ſe petitur, ſed propter longinquitatem navigandi. Plin. hiſt. nat. lib. xxxi. c. 6.

[v] —— frangeret me tamen infirmitas liberti mei Zozimi —— nam ante aliquot annos, dum intente inſtanterque pronunciat, ſanguinem rejecit; atque ob id in Ægyptum miſſus a me, poſt longam peregrinationem confirmatus rediit nuper. Plin. epiſt. xix. lib. v.

[w] Celſ. lib. iv. c. 4. § 5.

known

known by the name of a bad habit, and taken notice of as the conſequence, as well as the cauſe, of diſeaſes. Perhaps, from an imperfect termination, there may be ſtill ſome lurking remains of the diſeaſe, in a formal ſhape, or more obſcurely, which nature, in a depreſſed ſtate, is not able fully to exterminate or ſubdue.

Exerciſe, and change of air, have always been chiefly depended on in a ſlow doubtful recovery, and effectual when other methods failed, to prevent a relapſe. How much exerciſe, and air at ſea, contribute to enliven and ſtrengthen the vital fluid, is very evident, in many circumſtances, from the hiſtories given; in moſt of which a recovery was brought about more by living a ſhort time at ſea, than could have been expected in a much greater, if at all, or to ſuch a degree, in our climate at land. The effects almoſt conſtantly were, and very ſoon, greater appetite, more ſpirits, abatement of ſymptoms, and an increaſe of ſtrength; a few days making often a remarkable change, both as to health and the diſeaſe.

An

An atrophy as well as a cachexy is ſailing likewiſe directed in; and, according to Ætius, the alternate motion and reſt the body undergoes in it, will, if any thing can, diſpoſe it to be nouriſhed. In the nervous atrophy particularly, following the dry belly-ach, or colica pictonum, ſo frequent in the Weſt Indies, it has been long, I am well informed, a common remedy. Upon the abatement of the ſymptoms, ſays Dr. Towne (chap. *of the bilious colick)* and recovery of the patient, Sydenham very juſtly recommends riding, as a prevailing means to prevent the return of the fit, invigorate the bowels, and ſtrengthen the concoctive powers. I have frequently experienced the good effects of this advice: but there is ſtill another exerciſe, which I have obſerved to be of more ſpeedy, more laſting, and more effectual benefit; and that is being carried round the iſland in a ſhip or ſloop, which is a convenience few need want in Barbadoes. I have ſeen thoſe who were reduced to the moſt calamitous appearance, and even upon the verge of the grave, from a long continued colick, in a week's time recruited

cruited to a degree beyond expreſſion, only by this method of ſailing, when they were incapable of undergoing any other kind of carriage.

APPENDIX

APPENDIX.

Concerning Bathing in fevers.

THE natural malignity of the diſeaſe is, no doubt, moſt frequently the great impediment to a cure in fevers. By miſmanagement and irregularities in the ſick themſelves, or a perverſe treatment, the diſeaſe is often aggravated, or ſome new malady perhaps brought on. If remedies are not adminiſtered till late in the diſeaſe, thoſe changes intended by them cannot be effected before the time that a doubtful criſis muſt take place. But a premature adminiſtration of remedies, is generally no leſs hurtful; for nature here, at a time not proper to aſſiſt her, ſuffers all the effects and violence of them, without benefit; the diſeaſe ſtill increaſing, and a criſis not near. In theſe and many the like unfavourable circumſtances, ſome higher aſſiſtance than common practice directs,

directs, or has thought fit to encourage, ſeems many times neceſſary. Bathing the whole body in fevers is not new. When elſewhere [a] I long ago mentioned it, it was with a full intention, ſome time or other, as opportunities ſhould offer, to make trial of it. The ſucceſs that attended its uſe in the following caſes, all indeed in which I have tried it, gave me no cauſe to regret the experiment, and neceſſity juſtified it.

I. A young man, ſomewhat of a ſlender make, was in the beginning of a fever bled, vomited, and purged. I ſaw him firſt the ſixth day, but could not determine the kind of fever. The ſeventh at night his head began to be affected; through the night he was very reſtleſs, and in the morning quite delirious. He was pale, his eyes ſunk and muddy, with a tendency to inflammation, his features ſharp, his ſkin dry and hot; and a ſhrinking of the ſolids gave a general appearance of being much waſted. The pulſe in proportion grew low, the tongue was parched, and he paſſed his urine inſenſibly. This was a caſe of much inanition, the affection

[a] *Medical Eſſays*, vol. v. art. 48.

of the head was come to a great height early in the diſeaſe, and all kinds of medicines he threw up; nor was a criſis perhaps to be expected before the fourteenth day. Theſe conſiderations determined me to bathe him. A ſmall bliſter was applied to his head, and he was put into a bath, prepared with garbage and bran, which he bore eaſily; and, when put to bed again, he fell into a compoſed long ſleep, his ſkin became ſoft and cooler, with a kindly moiſture upon it. Six days running he was bathed, and always with the ſame good effect. The twelfth day a large parotis was diſcovered, hard, inflamed, and painful to the touch, which in two or three days went off, without any bad conſequence. By thus bathing, a clyſter now and then injected, and wine added to all his food and drinks, for it was refuſed pure, he recovered, and was ſoon again ſtrong.

II. A gentleman, upwards of ſixty, pretty corpulent, and all his life accuſtomed to live freely, was ſeized with a fever. I did not ſee him till the eleventh day. A delirium appeared early, he had been bled twice, and bliſtered, and was now quite inſenſible,

as he had been for ſome time, with a heavy ſleepineſs upon him, but awaking often as in ſurprize, raving and muttering. His eyes were much inflamed, and his looks wild, his face full and red, like one apoplectic or drunk. He had a conſtanr hot ſweat upon him, and a ſubſultus. The pulſe indeed ſeemed to be good, that is, full and equal, and not quick; but this, we know, is not always to be truſted to, other bad ſymptoms increaſing. The inflammation of the brain ſo great, and the time for any thing to take effect before the uſual mortal period being ſo ſhort, and his advanced age, in which the veſſels have loſt much of their action, all required a ſpeedy and powerful aſſiſtance. Having to do here chiefly with a local affection of the brain, blood was taken from the temples by leeches. A ſeton was put into his neck, and he was bathed, the wounds from the leeches ſtill bleeding, in a decoction of the emollient and mild aromatic plants. After bathing he ſlept long and ſound, his ſkin was cooler, with only a breathing ſweat upon it; and next morning he appeared a little ſenſible; ſtill more ſo after a repetition of it; the uſe of which every

every day, for three or four times, I directed, and a refreſhing julep to ſip of frequently. He recovered.

III. My advice was aſked for a woman who had been more than a month in a fever. She ſlept none almoſt the firſt fortnight; the ſecond ſhe was delirious, with great ſubſultus, and had a conſtant diſpoſition to ſleep; out of which ſhe frequently ſtarted, perpetually talking. For two days ſhe appeared much better, but relapſing became quite inſenſible, and the delirium and ſubſultus were now higher than before. I adviſed a bath, which ſhe ſuſtained only a quarter of an hour, and lay after it pale, faint, and ſleepy, for an hour or two. She became leſs delirious however, ſlept the beſt of the night ſound, in a natural poſture, which formerly was always ſupine, and after a ſecond bathing, which was longer, grew pretty ſenſible; the ſubſultus went off, and continuing to have refreſhing ſleeps, in three days all the ſymptoms were much gone. She had another relapſe, but by repeating the bath, this ſhe got over alſo; though greatly now, we may imagine, in all reſpects reduced.

This patient, it is to be obſerved, was always faint in the bath, or for ſome time after it, which might have been owing to her being ſo much exhauſted, by the long continuance of the diſeaſe, and having been bled with leeches, which on a wrong relation of circumſtances I had ordered. It is obſervable too, that on changing the bath of water with herbs, for one of broth, which cauſed a troubleſome itching over all her body, ſhe was ſenſibly ſtrengthened and reſtored. I had occaſion to ſee her accidentally ſoon after, and found her recovered much more than I have uſually ſeen in the like caſes, having nothing of that incapacity, languor, or delirium, which often remains long after tedious waſting fevers, where the head has been to a high degree affected; and it is likely was prevented by the quick ſupplies of nouriſhment afforded, from bathing, in the recovery.

IV. A woman, the fifth or ſixth day of her lying in, fell into a continual fever. I preſcribed ſomething in the common way, without ſeeing her, and without effect. The fever increaſing, I was deſired to ſee her the ninth or tenth day. According to the beſt pro-

prognoſtic I could make, ſhe was in circumſtances I had not known one outlive twenty-four hours, if ſo much. She had not ſlept a great while, was completely delirious, knew no body, could ſpeak none, only faultering, with involuntary ſhew of laughter, and not able to form her voice, ſhe vainly attempted to ſpeak. Her eyes were fierce, and greatly inflamed, her countenance red and fiery, ſhe trembled univerſally, was reſtleſs, toſſed continually, and in an anxious hurry ſtared wild, and catched at every thing; under heat and agony ſweating profuſely; her pulſe in the greateſt diſorder. Without the ſmalleſt proſpect of doing any ſervice, I ſaid they might, if they pleaſed, put her into a bath of warm water, and left her. This was more readily agreed to, as ſhe was now in every one's eyes dead. Next morning, to my great ſurprize, I was informed, by a meſſage I had deſired, if ſhe lived ſo long, that after the bath ſhe became ſomewhat ſenſible, and ſlept, but was ſtill delirious. I cauſed the bath to be repeated every day; by which, and proper diet and management, ſhe recovered. But it was long before the affection of her head went entirely off,

and not without danger of having her faculties impaired. In no caſe have I ever ſeen one ſo evidently reſcued from imminent death.

V. The fourth day after delivery a woman was taken ill of a fever, the fourth day of which I was aſked to go to her. Next day ſhe was delirious. After directing what was proper otherwiſe, I adviſed bathing if the delirium increaſed or continued. They bathed her once, but apprehending her the worſe for it, it was no more uſed. She died the ſeventh day.

VI. It was tried likewiſe in the caſe of a young gentleman, who, after a low-ſpirited illneſs, which a little before had gone off, fell into a fever, attended from the beginning almoſt with obſtinate delirium and watching, but without any ſenſible effect any way, though other remedies, the fitteſt, were at the ſame time adminiſtered.

A friend, at my deſire, and upon having ſeen the ſucceſs of bathing in the gentleman's caſe of ſixty above related, was encouraged to try it in the following caſes, which he has favoured me with.

VII. Mr.

VII. Mr. M——, aged fifty, the eighth day of the fever, was bliſtered, and uſed the warm pediluvium. He became ſo delirious that two ſtrong men were neceſſary to keep him in bed. On the tenth I found him, his head prodigiouſly affected, under conſtant raving and reſtleſsneſs, his eyes much inflamed, his pulſe low and unequal, and his tongue rough and black. I was told he had not ſlept for three days and nights. Leeches were applied to the temples, and as ſoon as it could be got ready, I put him into a warm bath, and held him there by force twenty-ſeven minutes. After it he fell aſleep, and ſlept from betwixt ſix and ſeven in the evening, till ſix next morning, and never ſtirred but once to take drink; and had at the ſame time a plentiful ſweat upon him. When he awaked he was more compoſed, and ſenſible at times, his pulſe better. He was bathed again the eleventh, half an hour in the evening, and ſlept from ſeven, till near five in the morning, and awaked as ſenſible as ever he was in his life, and his pulſe regular; only a kind of ſtupor upon him, owing, I imagined, to a deafneſs, which went off in a day or two. The third time

he was bathed, he went into the bath himſelf, without the aſſiſtance of any body. He was bathed five times, always with the ſame effect, and recovered very ſoon.

VIII. A ſtrong luſty young woman had the ſame fever. I did not ſee her till the thirteenth day. She had been delirious five or ſix days, and ſlept almoſt none all that time. Before, ſhe could ſcarcely be kept in bed, but was now much worn out, and weak. Her eyes were inflamed, her tongue black and parched, her pulſe low and trembling, with tremor all over her. She was bled with leeches, and bathed directly, near half an hour. This produced a plentiful ſweat, and ſhe ſlept from three in the afternoon, till five next morning. Her pulſe recovered a good deal, and ſhe was more compoſed, though ſtill inſenſible. I purſued this method, which always procured ſleep and ſweat; but ſhe did not become ſenſible till after a fourth bathing. She was bathed ſix times, and ſoon grew well.

IX. Another young woman I ſaw the ninth day of a fever. Her head was affected, ſhe raved and was very reſtleſs, her eyes were inflamed, and her pulſe unequal.

equal. She was bathed twenty-five minutes, ſlept well, and ſweated moderately, and was ſenſible next day. She was bathed only thrice, and recovered.

A bath applied to the whole body, affects more immediately and certainly all the ſolids and fluids than any other remedy poſſibly can do. While, by its warmth it cauſes a tranſpiration of the morbid humours, much of it paſſeth into the blood, by the abſorbing veins; and the changes produced in all the fluids, by increaſing their quantity when deficient, diluting, or ſome other way altering them, is obvious. But the effect it has upon the ſolids is ſtill more evident, as it highly ſoothes and comforts the whole body, by taking off remarkably the febrile ſtricture. A ſpaſm is eſſential to all fevers, but more peculiar to ſome. This ſpaſm increaſing into delirium, and higher nervous ſymptoms, cauſes a diſordered circulation, interrupts the regular operations of nature to ſubdue the fever, or bring the matter of it to concoction, and throws the fluids upon improper places. The fever excites the ſpaſm, the ſpaſm again aggravates the fever, and their effects are reciprocal. If we can allay the over-bearing tenſion,

tenſion, we remove one great cauſe, or a chief ſymptom of the fever, ſometimes principally to be conſidered: for then the diſeaſe becomes ſimple and mild, as the nervous affection adds greatly to the malignity and danger; the local diſorder of the brain being at laſt the immediate cauſe of death. A fever with delirium is a complicated diſeaſe.

After bathing, the ſick fall into a ſleep, ſleep long and ſound, the delirium and ſubſultus gradually abate, the ſkin before hot and dry grows cooler, and has a kindly moiſture upon it; profuſe ſweats, which are not of the nature of the diſeaſe, but ſymptomatic only, and the conſequence of a general ſpaſm, become moderate; and the fleſhy parts, now leſs conſtricted, feel plump and ſoft: all ſigns theſe that the morbid tenſion is much relaxed. Wine internally, and bathing externally, are in many reſpects analogous.

Let us hear on this head what was ſaid by the antients. *Balnea aquarum dulcium calefaciunt nos et humectant, quod calori habeant humorem conjunctum. — duras tenjaſque partes emollit (balneum), excrementum liquamentumque quod intus hæret ad cutim evocat.*

evocat. — Balnea moderata corpori reſtituunt mediocritatem temperamenti, vires corrigunt, opportunum calorem augent, ac denique una cum ſudoribus non nihil flatuum diſcutiunt. — A balneis igitur vacuatur quicquid in corpore vel fumidum vel fuliginoſum præfuit. — Ex balneis duo hæc ægro compendia accedent, et quod redundantiæ humorum vacuabitur aliquid, et quod multum tranſpirabit caloris febrilis. — Nam id ſane mirum balneis ineſt quod tam calidis proſint quam frigidis ſiccitatibus: quemadmodum et illud quod eos ſiticuloſos efficiat qui ſitis ſunt vacui, a ſiticuloſis vero ſitim abigat. — Si ſola febris conſtiterit balneum expoſcit, non ſecus ac cæteræ ſiccitates, quæcunque vel calidæ fuerint vel frigidæ. — Huic ſuccedunt plane excrementorum evacuatio, æqualis per univerſum corpus calor, exiguorum meatuum rarefactio, tenſorum laxatio, denſatorum fuſio. — Balneæ ſiquidem eo quod madefaciunt caput, ſoporiferæ ſunt.

Theſe things, many of them, it will be obſerved, relate to bathing in all its parts, as practiſed by the antients. Yet moderately warm baths of water, by their heat, moiſture, preſſure, and continuing a ſufficient time in them, will more or leſs produce all the

the ſame effects; and in fevers (though cold bathing was ſometimes, as in great ardency, admitted too) are beſt ſuited to the condition of the ſick, and circumſtances of the diſeaſe, in our climate; much more when properly medicated, as they were directed to be. An ingenious explication of the mechanical effects of bathing, ſee in Dr. Glaſs's *account of the ancient baths.*

An erect poſture is juſtly condemned in acute diſeaſes, as it often cauſes weakneſs, fainting, and ſometimes death. For want of right conveniences the ſick were all thus bathed, without any conſequence to be dreaded. I reckon the warmth of the bath, procuring greater ſtrength and freedom of circulation, and determining more to the ſurface, prevents that lowneſs, and retroceſſion of humours, cauſed by ſitting upright. If any danger is apprehended from it, having a proper veſſel, they may be lifted and bathed in an horizontal poſture. But it ſhould be attended to, whether, in ſome caſes, the warmth of the bath may not, in a lying poſture, cauſe too great an afflux to the head.

Al-

Although, from the diſturbance they ſuffered, on being put into the bath under an increaſe of the fever, I ſometimes thought the ſick were not ſo immediately benefited by it; that is, were ſome way more diſordered, and not ſo compoſed after it; yet the moſt proper time for bathing, and when its effects are moſt wanted, is the acceſs. For as it diſpoſes to calm ſleep, and ſeems to regulate the diſcharge by the ſkin; promoting it when too little, and reſtraining it if it exceeds; the exacerbation, which happens ſooner or later in the evening, increaſing through the night, is leſſened or prevented: the head is preſerved from high impulſes of fever and delirium, in which chiefly ſafety conſiſts; and the ſymptoms are kept moderate, until the humours are concocted, and the diſeaſe terminate. The time of continuing in the bath was from fifteen to forty minutes or more, as it could be borne.

Frequent uſe, if ever it ſhall be brought into uſe, and in a variety of caſes, can only determine in what kinds of fever bathing is a fit remedy, and what are the times moſt proper for bathing, whether early or later, in the increaſe, or toward the ſtate and in

the decline; in which a regard muſt be had likewiſe to many other circumſtances, as they reſpect the diſeaſe itſelf, the climate, and ſeaſon, age, ſex, and particular habit.

When or whence it took its riſe I am not able to inform myſelf; but yearly almoſt, in the ſeaſon, I ſee intermittents ſucceſsfully cured by a method of bathing, on the approach of the fits, and drinking daily a light ſteel water; and this when the diſeaſe has been of long ſtanding, frequently relapſing; or is become anomalous, and the common febrifuges avail little. Few go without a cure, though ſomewhat tedious.

Doctor Fiſher has informed us of the great ſucceſs of conſtant bathing, through all the different ſtages of the ſmall-pox.

There is no caſe in which it ſeems to be more indicated, and to promiſe more relief, than the higher inſtances of pleuriſy and peripneumony; to which may be added a paraphrenitis. It muſt far exceed thoſe partial bathings ſo much, in this claſs of diſeaſes, recommended: for applied to the whole cheſt, it will affect powerfully all the containing parts; cool more effectually the inflammation; and, by relaxing kindly the vehement

vehement conſtriction, give greater freedom of reſpiration. The vapour too drawn into the lungs promotes expectoration. *Concoctis jam affectionibus, balneum citra periculum adhibetur, quum etiam ad expurgationem ſputorum, quæ pleuriticorum, et peripneumonicorum thorace et pulmone continentur, maxime conferat. In iis erga qui ſic affecti ſunt balneum iterari nihil prohibuerit.* Oribaſ. *collect. med.* lib. x. cap. 1.

One in a peripneumony, accompanied in the beginning with a ſtrong gouty appearance, never expectorated, and was delirious. A bath was tried, but, as the event ſhewed, too late, being the ſeventh day, which had been prognoſticated fatal. Though ſome, in the preceeding hiſtories, ſeemingly to me as bad, were plainly ſaved by it, this inſtance brings to mind a remark given us concerning it; that bathing, which may be of uſe to many, ſhould, in deſperate diſeaſes, be cautiouſly employed, leſt, not proving ſucceſsful, it cauſe abhorrence in the vulgar, and a contempt of it.

Military and naval hoſpitals afford the beſt opportunities every way, to aſcertain and improve a practice of this kind; which, how greatly ſoever dreaded always, from a ſuffi-

a ſufficient experience of it, I am now certain, when directed with judgment, is ſafe, eaſy, and friendly to nature.

The following is an extract of a letter from the Author *to a friend in* London, *dated April* 20, 1756.

One complained for ſome days of a cough, diſorder of his ſtomach, and oppreſſion. Aſking advice, he was found under an obſcure delirium, which ſoon increaſed into furious raving. He called inceſſantly for drink, but when it was offered, ſhewed great horror, and daſhed it from him, or if he taſted it ſpit it out with vehemence, threatning to bite thoſe who held him. After a day and night in this way, no relief being obtained from bliſtering the back, and other things uſed to quiet him, he was bathed, and bliſters were applied to the legs. In an hour or two he fell aſleep, ſlept four hours, and awaked very ſenſible. He went into the bath next day himſelf. I happened to ſee him at this time. The diſeaſe ſeemed to be going on in the form of a fever, with conſiderable heat, quick pulſe, and dry tongue. I approved of continuing the bath, to prevent a delirium, and remove the fever.

FINIS.

SUPPLEMENT

To a TREATISE of

The USE of SEA VOYAGES in MEDICINE.

WHAT I advanced, not long ago, in a treatiſe of the uſe of ſea voyages in medicine, was in general enough, perhaps, to recommend to the attention of others, a practice which appeared to me of no ſmall importance. It has been hinted, however, that the matters treated of might, in many places, have been enlarged on with propriety; and as I had often only juſt mentioned things, an explication of them would not be unacceptable. I have adventured, therefore, if it can afford any ſatisfaction to the reader, or at all profit the ſubject, to throw toge-

principally in view, I ſhall in the preſent remarks confine myſelf chiefly to it, and endeavour to ſhew, more clearly, the conformity betwixt the remedy and the diſeaſe, which may, perhaps, in particular caſes, direct to a more ſucceſsful application of it.

In the free, equable, uninterrupted circulation of the blood and humours, and the excretion in due quantity of what is ſuperfluous, does life and health conſiſt. This ſuppoſes a right conſtitution of the fluids, and action of the ſolids. The blood is ſo conſtituted as to act conſtantly on the veſſels as a neceſſary ſtimulus, to inſtigate their motions. The veſſels again acting upon the fluids give them their conſiſtency, and a greater degree of motion; and thus they become mutual cauſes in the great buſineſs of circulation. The blood, though a very glutinous fluid, is obſerved, notwithſtanding, to be very effluent and penetrating, by which it is wonderfully fitted to circulate in veſſels extremely ſmall. Whence this greater effluency ariſes, whether from a particular elaſtic principle in the blood, or ſuppoſing it the reſult of an intimate

union and commixture of all the parts of which this ſingular fluid is compoſed, can be of no great uſe here, minutely to enquire.

The preſent great ſource of philoſophical enquiry, electricity, ſhews, that there is a mighty actuating principle diffuſed through all nature, which pervades all bodies, and is found to exiſt more or leſs in them. In animal bodies, if we believe a favourite conjecture of ſome, it is the chief cauſe of heat, vitality, and the motion of the fluids. It may be generated, ſo to ſpeak, in the body by means of a certain proceſs continually going on while life ſubſiſts (ſee Dr. Stevenſon's theory of med. eſſays, vol. VI.) or is derived from without. In confined air fire is extinguiſhed, vegetation is ſtopt, and fermentation ceaſes. In it an animal languiſhes, becomes unhealthy, and dies. That the ſea is really a proper and more plentiful ſource of electrical æther, I will not take upon me to affirm. Some things ſeem to favour the notion, others are againſt it. However it be, this I am well aſſured of, from conſtant obſervation, that there is ſomething in the air at ſea highly vivifying

and reſtoring, beyond what I have ever obſerved at land. What it is that, in a free communication of air, is found ſo eſſential to life, and where it principally exiſts, as there is room at preſent for conjecture only, I ſhall leave to others, more verſed in ſuch enquiries, to determine.

The blood is, beſides, a fluid of a ſaline bituminous nature, and inflammable when dried. From the uniform mixture, in due proportion of its ſeveral principles, ariſes that ſoundneſs of humours, which is the true foundation of a healthful ſtate; and when it deviates from this juſt proportion on either ſide, there is a diſeaſe. If the ſaline ſulphureous principles prevail, diſeaſes of the acute, ardent, inflammatory kind enſue. But when from a deficiency of the more active parts, in which its ſpirituoſity conſiſts, the blood becomes poor and effete, thoſe diſeaſes that depend on a languid motion, obſtruction, and a vapid putreſcence, will be the conſequence. In order to ſupply the defect, we endeavour, by a variety of remedies, well known, to ſtore the blood with warm, ſtimulating, balſamic, ſtrengthning parts; by which the veſſels are excited

cited to greater action, and a briſker circulation is promoted; and we have a proof of their fitneſs in the happy effects brought about by them: but theſe effects are ſtill more remarkably felt at ſea. If the conſtitution of the blood is ſuch as hath been deſcribed, if there is a conſtant emiſſion by the pores of what is redundant, and air, with all its qualities, is, in ſome proportion, attracted, living at ſea there will be a continual acceſſion to the blood of parts (abounding in the ſea) ſimilar altogether to thoſe of greateſt energy in its compoſition; the invigorating power of which muſt be communicated to all the fluids, and the whole body will very ſoon partake of it. Without admitting a ſuppoſition of this kind, I have not been able to account to myſelf for the ſudden return of appetite, ſpirits, ſtrength, fleſh, and indeed laſting health, commonly obſerved, on living but a very ſhort while ſometimes at ſea. But, leaving theſe as matters of a more ſpeculative nature, though fit to be taken notice of in a hiſtory of air at ſea, one thing will be obvious to every one, that air here being, in the general conſtitution of it, warmer in

winter, and agreeably ventilated in ſummer, muſt, in every ſeaſon, eſpecially in ſome particular diſeaſes, be more than ordinary ſafe and healthful.

A conſumption is more generally fatal, and yet is more generally neglected, than any other malady, at a period in which a cure can with any certainty be attempted. The ſlow unſuſpected manner in which it commonly attacks, for the moſt part gives no immediate apprehenſion of danger; and, being attended with little pain or ſickneſs, the hopes of recovery, even in the moſt deplorable ſtate, are often, through all the lingering courſe of it, vainly entertained. A ſpitting of blood ſometimes gives the alarm, and early warning of its approach. This appearance has been always, and juſtly dreaded; and, except when it happens in the way of mere tranſudation, or is brought on by accidental cauſes, in habits otherwiſe ſound, is uſually the forerunner of a conſumption, or ſhews a ſtrong tendency to it.

I alleged, that tumifying glands compreſſing the veſſels were, moſt frequently, the cauſe of a rupture of them, though there ſhould be no certain ſigns of tubercles being

being yet formed: for theſe, I believe, may exiſt a long time in the lungs, without cauſing any impediment to their motion, or health being much affected thereby. Such a great ſpace intervenes ſometimes betwixt a ſpitting of blood and the real appearances of a conſumption, that I cannot imagine ulceration to be, ſo frequently as is thought, the conſequence of the rupture of the veſſel not agglutinating, which would ſooner diſcover itſelf by the circumſtances of cough, fever, and purulent ſpitting. A baker, of a ſmooth ſkin and fine complexion, in the beginning of ſummer, ſpit a good deal of florid frothy blood. The hæmorrhage ſtopt, and, by proper diet and management, he recovered, and continued ſeemingly in perfect health for ſome months. In autumn he began to cough, a hectic fever came on, and at length he ſpit matter, and died. The ſame progreſs of the diſeaſe may be often obſerved. I have taken notice of it thus particularly, becauſe I think the cauſe of a conſumption, after ſpitting of blood, is, moſt commonly, to be ſought ſomewhere elſe than in the ulceration of the ruptured part; and the circumſtance of tubercles is always

to

to be kept in view. Though they ſhould not at preſent exiſt, we may be aſſured they are about to form; for upon diſſection they are always found; and we ought early, by all methods external and internal, to provide, with great care and pains, againſt ſuch an event.

A dry cough, attended with fever, and ſweating, and waſting, gives juſt ſuſpicion of tubercles; and ſome ſmall attempts perhaps are made, often by very inadequate remedies, to reſolve the obſtruction, and prevent ſuppuration: here the diagnoſtic is plain. But in a ſpitting of blood, ulceration being ſuppoſed, in ſome manner, the conſequence of the hæmorrhage, we believe we have ſatisfied every intention, when we endeavour to heal the rupture, and ſecure againſt any farther hæmorrhage; and theſe engroſs ſo much our attention, that the main intention is overlooked, or it may be altogether unimagined. Beſides, the bleeding and cooling methods practiſed in the hæmorrhage, ſuſpend, for a time, the growth of the tubercles, and the exiſtence of them may not therefore be ſo much apprehended. We are not, however, to conclude, that the

the danger is over, even when the appearances of blood may have been, a conſiderable time, over. The latent obſtruction, from whence danger chiefly ariſes, increaſing afterwards, by ſlow degrees, into a confirmed ſtate, ſhews itſelf at laſt the genuine, though leſs ſuſpected, cauſe of a mortal, purulent conſumption.

There is no claſs of diſeaſes, in which a certain ſet of remedies have been more indiſcriminately uſed than a cough and conſumption. A cough proceeds from various cauſes, to which a very different method of cure is required. A conſumption is either glandular, or pituitous, or from a catarrh; and the ſame treatment would ill agree in them all. I have often doubted whether a practice, which is recommended indeed, and ſome give into, is always the moſt proper and juſtifiable, I mean the uſe of warm balſamics in a ſpitting of blood, or after it. They are directed with a view to conſolidate; and upon a preſumption that ſuppuration always does, or may ſucceed the rupture of the veſſel, which, I am perſuaded, is rarely the caſe. The ſimple rupture of a blood veſſel, emptying itſelf into

into the branchial veſſels, for the moſt part, very ſoon, I believe, agglutinates, if a due motion and temperature of the fluids is preſerved; and the more readily, as the mild lining mucus of the lungs will anſwer the purpoſe of a kindly healing application. But when the blood is ſhed into the cellular interſtices of the lungs, we have a different idea of the diſtemper; different indications ariſe, and a peculiar method ſeems to be required, in order to diſcharge the extravaſated coagulated blood, reſiſt the putrefaction of it, and diſpoſe the part to heal. Aſtringents are juſtly condemned in a ſpitting of blood, as, by drying too much they are apt to cauſe heat and inflammation of the part. Pus is the natural conſequence of inflammation, when advanced to a certain degree. Now if the hotter ſtimulating balſamics are exhibited, in ſuch quantity as to produce any effect at all, they undoubtedly will excite more or leſs of fever, which as certainly will in ſome degree increaſe the inflammation; and what was intended to prevent, it is not unlikely, may rather, in the iſſue, diſpoſe to purulence. I would not be thought by all this to decry abſolutely

lutely all remedies of this kind; there are caſes wherein they may be of much benefit: I mean only to caution againſt a too general and precipitate uſe of them in this diſeaſe. The end chiefly propoſed by them, that of conſolidating, is ſo often obtained without them, that I am inclined to think they are very ſeldom needful; and, before they are brought into uſe, ſhould be very plainly indicated.

Whether a conſumption following upon a ſpitting of blood, is owing to the rupture of the veſſel not healing, or blood corrupting in the ſmaller branches of the windpipe, or the ſuppuration of tubercles, is not eaſy ſometimes, nor indeed is it very neceſſary, in the preſent view, preciſely to determine. In any caſe I ſhall always believe that I do what is right, and moſt conducive to health and life, when I adviſe to go to ſea immediately; as no method that has yet occurred to me, ſeems, in any reſpect, to promiſe greater ſecurity againſt a conſequence ſo much to be dreaded. The caſe of a young gentleman lately, afforded a notable inſtance of the ſucceſs of it. He was of a very ſlender make, and the moſt delicate

delicate conſtitution that can be imagined till he was fourteen years of age, ſo that with the utmoſt difficulty he was raiſed into man. Laſt winter he catched cold; a ſevere cough came on, with night ſweats, loſs of fleſh, ſtrength, and appetite. No fever could be diſcovered by the pulſe, which was rather flaccid and ſlow, though the tongue was very white. After a conſiderable time, and much pains, the cough went almoſt intirely off, and he recovered a good deal, but continued all the ſpring pale, languid, and emaciated. In April, while drinking milk in the country, he ſpit blood twice in no ſmall quantity. He grew ſenſibly worſe, and ſo weak, that in walking the leaſt aſcent overcame him. He went to ſea in June. His appetite, which was ſtill bad, increaſed ſo much, that it became almoſt voracious, and he ate without diſtinction of every thing, and with no regard to quantity. After ſome days, the ſhip putting into an harbour, he lived eight days aſhore. A few days more at ſea carried him to the end of his voyage out. He lived again aſhore ſome weeks in a country place, waſhed every day with the

the tide. Here he drank milk, and rode frequently. The ſhip was only three or four days in coming home. By thus ſailing, and living aſhore interchangeably, a ſurpriſing alteration was brought about. He returned without any complaint; and, having recovered his fleſh and ſpirits, he had now a ſtrong hale look, and a ruddy complexion, and could walk ſome miles with eaſe, though, while abſent, he had uſed freedoms in eating, and even drinking, not at all conſiſtent with his natural delicacy, or the weak ſtate of his lungs, yet without hurt. While I am writing this, December 1756, he enjoys perfect health.

The reſolving power of ſea air can hardly be doubted, when we conſider the peculiar compoſition of ſea water, fully ſaturated with a variety of ſubſtances of a very volatile penetrating nature; which impregnating, more or leſs, the vapour with all their virtues, render it a very active application, which is ſtill farther improved by the moiſture and temperate warmth of it. Dr. Ruſſel has, from a number of undoubted facts, ſhewn indiſputably, the great efficacy

efficacy of ſea water externally, in reſolving glandular tumors. Sea air, therefore, neceſſarily partaking of the ſame virtues in the vapour, muſt be equally ſuitable to the lungs on the ſame intentions; and where it can be obtained, I am diſpoſed always, when a ſea life cannot be complied with, to make choice of it, as better adapted, in all reſpects, than common air, to the nature of the diſeaſe, and the preſent ſtate of the part affected. Some trials I made of living near the ſea only, I have reaſon to think were not without effect.

A gentleman, naturally of a delicate conſtitution, was ſubject to a cough. The beginning of laſt winter his wife died of a conſumptive diſorder, but without any appearance of purulence. His cough increaſing, he was deeply impreſſed with the notion of infection. Fear, grief, and a juſt concern for his loſs, depreſſed him exceedingly; which, together with the cough continuing all the winter and ſpring, kept his friends in much pain for him. Proper remedies were not neglected, but I truſted chiefly to a better ſeaſon for recovery; and as the ſummer approached he grew ſomewhat

what better. His affairs would not permit a long journey, or a ſea voyage: in conſequence therefore of a ſcheme, I directed ſea air, and the uſe of milk. He rode every morning faſting three or four miles cloſe by the ſea, drank aſſes milk, ſpent the day, and, after drinking again in the evening, returned the ſame way. Under this daily exerciſe, the ſea air, he ſaid, was highly refreſhing to him; he got a keen appetite and great ſpirits, and always finiſhed his rides with a ſtrong ſalt taſte from the ſpray. Thus he ſpent a month or more; the cough went off, and he regained his uſual health; to confirm which, I adviſed him to drink, for ſome weeks, a light ſteel water.

Another affection in which ſea vapour, or ſpray, may, on account of their moiſtening reſolving qualities, be of ſingular benefit, is calloſity of the lungs. Of this we have inſtances in hiſtory II and IV of the treatiſe, where a conſtant laborious breathing, if I do not err in the diagnoſtic, characteriſed the diſtemper. When the ſmall glands of the lining membrane of the air-veſſels are obſtructed from ſudden cold, if

they continue long in this ſtate, and the obſtruction does not reſolve, they acquire a ſchirrous diſpoſition; and the air veſſels become ſtiff and unyielding, and cannot be ſo freely dilated. This muſt affect the breathing much more than is obſerved in the caſe of tubercles, ſcattered at firſt only here and there in the ſpungy ſubſtance of the lungs. The effect of ſailing, in theſe caſes, exceeded greatly any expectations I had then formed of it; and, in ſuch a degree of the diſtemper, anſwered the intention more effectually, I am apt to think, and more ſpeedily, than any other remedy poſſibly could have done. To this affection ſome kinds of aſthmas, perhaps, bear ſome analogy.

Two very different intentions, as they reſpect the lungs, preſent themſelves in a conſumption, the removal of the hardneſſes and the healing of the ulcers. Diſſections of thoſe that are conſumptive, ſhew the lungs filled with tubercles of various ſizes, and in very different ſtates; their whole ſubſtance being ſometimes a confuſed maſs of glandular ſwellings, abſceſſes, and ulcerations. From theſe circumſtances, in

the progreſs of ſymptoms, we determine the different ſtages of the diſeaſe; which, under ſuch a complication, affords a very complex indication in the method of cure. Judging from common practice and the rules of ſyſtems, the general current of practice ſeems to be determined wholly to the cleanſing of the ulcers, the ſweetning of the fluids, as it is called, and the alleviation of ſymptoms. The reſolution of obſtructions, ſtill forming, to the very laſt, ſo as to prevent farther ulceration and the conſequences of it, is not at all, I think, in this ſtage attended to. And that this intention ought no leſs earneſtly now to be purſued than in the ſtate of tubercles merely, without ulceration, is very evident. For what do we effect, while buſied in deterging and healing thoſe glands that are already ulcerated, if, from the growing obſtruction, new abſceſſes are ſuffered daily almoſt to form, by which the ulcerations are continually multiplied, until the lungs are intirely occupied by them? Hence conſtant new ſources, and an increaſe of purulence, notwithſtanding all our endeavours.

Indeed, this intention, the reſolving of obſtructions, and in every ſtage of a conſumption whilſt a poſſibility of cure remains, is ſo evidently ſuggeſted, and ſo material, that without a continual attention to it, we ſhall make but ſmall advances towards a cure. What the proper deobſtruents here are, I mean in the ulcerated ſtate of a glandular conſumption, we ſhall hardly be able, from common practice, to learn. Conſidering the very delicate ſtate of the lungs, and of the whole body, and the many contraindicating ſymptoms in a conſumption, forcible deobſtruents internally, are very cautiouſly, or rather not at all, to be adventured on; and thoſe of ſmaller efficacy are unavailable: after examining, without prejudice (for if a cure is obtained by any method I have my end) all that have any claim to be regarded on this intention, ſea vapour and ſpray, externally, appear to me the moſt ſafe and effectual; not only as they reſolve the obſtructions, but as they dry and heal the ulcers. This, at leaſt, has been the opinion of thoſe, who formerly have conſidered ſailing as a remedy in this diſeaſe; and I ſhall preſume to

add, that the vapour is undoubtedly antiſeptic, and ſo will correct the purulent diſpoſition of the matter in the lungs, and thereby prevent, on its being reſolved, the overbearings of a putrid fever.

The difficulty that was found to convey remedies of a balſamic nature, with due efficacy directly into the lungs, ſuggeſted, at firſt, no doubt, the internal uſe of them; by which it was ſuppoſed that the blood impregnated with them, in the courſe of circulation, communicated all their virtues to the part affected, for all the purpoſes of deterging and healing. But if experience proves too fatally, that, when thus adminiſtred, they rarely anſwer our intentions, there is room to ſuſpect, that they are either improper in themſelves, or improperly applied, or not of adequate virtues.

It will throw greater light into this matter, if, purſuing a plain analogy, we conſider attentively what is done in a parallel diſtemper, or rather the ſame diſtemper differently ſeated, an external ſcrophula. It would argue little experience, or little attention, to treat an ulcerated ſcrophula, to which we can have acceſs by the hand,

with thoſe things which, in ordinary ulceration, long uſe has diſcovered to be altogether fit and beneficial. Applications of a particular nature and operation, are found to do moſt ſervice here, even thoſe of the ſaline kind. Therefore ſea-water, urine, and ſome medicated waters of a nitro-ſulphureous principle, are often, with much advantage, made choice of. Theſe, while they deterge powerfully, are, at the ſame time, highly reſolvent; and, by their drying ſtimulating qualities, prevent an undue elongation of the fleſhy fibres; whence ariſes that luxuriancy or ſpongineſs, which is ſo often the chief impediment to a cure. When all this is applied to a conſumption, and the uſe of detergent balſamics in it, we ſhall not perhaps diſcern ſuch a propriety in them as hath all along been ſuppoſed; and practice ſhews that their uſe is very much circumſcribed, altogether, I apprehend, to common impoſthumations, and ulceration from tubercles of a milder, or leſs indurated kind. The firſt ſtep, in order to be right, is to know that we are wrong. If, from a more judicious application of theſe, and ſome other remedies,

on

on which the greateſt ſtreſs is laid in a conſumption, any have been ſo happy as to aſſure themſelves, in general, of their good effects, I unfeignedly rejoice, and ſhall gladly ſubmit to be taught a more ſucceſsful uſe of them.

But, in the way of vapour or fumigation, remedies, upon every neceſſary intention, may be applied immediately, by inſpiration, to the lungs themſelves, in ſufficient quantity, unaltered by any change they might undergo in the courſe of circulation, and without exciting thoſe hurtful commotions and effects which, if there is any tendency to fever or inflammation, will certainly attend the internal uſe of them. The method was early introduced into medicine; and it is matter of regret, no leſs than ſurpriſe, that it has always ſo little obtained. Much caution, indeed, and judgment, will be required in the choice and application of remedies in this way; that they may be at once ſafe and eaſy, and of due efficacy, to anſwer the ſeveral intentions of cure, according to the different ſtate and conditions of the ulcers. Decoctions of pectoral herbs, the detergent balſams, drying gums, antiſeptics, ſulphur, and arſenic, are all di-

rected, and have ſometimes been uſed. This laſt, as it contains a very acid ſalt, and a ſmall portion of mercury, is certainly moſt effectual to remove the foulneſs, reſolve the hardneſſes, and promote a laudable digeſtion of the ulcers. But as its operation is ſometimes uncertain and ſevere, and may occaſion very grievous ſymptoms, in weaker bodies eſpecially, as the conſumptive always are, a milder application is earneſtly wiſhed for. The violent, tho' ſucceſsful operation of an arſenical fumigation, we have a remarkable hiſtory of in Riverius, *obſ. communicat.* 2. which, tho' it may not be an encouragement to the uſe of it, ſhews evidently the powerful effects of it. Even cinnabar, which is perhaps of a leſs deleterious nature, has ſometimes had violent effects too. All this, however, ſeems to point out (but I have no experience of it) the cautious uſe of a mercurial remedy, even internally, while the colliquative ſymptoms are not too far advanced, which ſlowly and ſafely may anſwer the ſame purpoſes. Why elſe is it daily exhibited in various ulcerations of a bad kind? A difference merely as to place, can make no alteration

alteration eſſentially as to the diſeaſe. Upon this important head of applications externally to the lungs, beſides what has been ſaid by the ancients, it will give no ſmall ſatisfaction to conſult two moderns of eminence of our own nation, Bennet in his *Theatrum Tabidorum*, and Mead in his *Monita & præcepta medica.*

It might ſtill farther illuſtrate theſe matters, with a view to eſtabliſh a more certain and appropriated method of cure in a conſumption, to conſider likewiſe the ſeveral internal remedies directed in a ſcrophula. To enter into a critical examination of theſe, as applicable in a conſumption, and compare them with thoſe now uſed in it, would be an undertaking too tedious for this place. The tranſition in ſuch a compariſon is eaſy, and every one will be able, from his own reflection, to make a proper judgment. If there is a plain analogy betwixt the diſeaſes in themſelves, methinks, the method of cure ſhould be analagous too. Thoſe indeed who, from a habit of thinking in a particular way, have been long addicted to a certain method, are apt to be partial to themſelves,

in

in thoſe favourite notions which time has rendered familiar to them; and to cheriſh a fond reverence of, and attachment to received practices. Medicine acknowledges no ſtandard of orthodoxy but what has its foundation in reaſon and experience; and there is one argument againſt the received practice in the diſeaſe now before us, which it behoves every one ſeriouſly to attend to, and, if poſſible, remove, the bad ſucceſs of it.

It is ſometimes obſerved, that a conſumption makes a formidable progreſs, even into the colliquative ſtate, before perhaps a ſuppuration is ſuſpected, and there is any appearance of pus by expectoration. This ſeems to happen, when the abſceſſes are ſituated remote from the larger branches of the windpipe, or the inveſting membrane of the glands is ſo thick and ſtrong, that it cannot be eaſily broken by the ſole force of the diſtending matter within, in order more ſpeedily to diſcharge itſelf. In ſuch a caſe they languiſh under a dry cough, and all the ſymptoms of colliquation, from abſorption, or the action of the lungs being impaired. For when there is not

not a due ſubaction of the blood in them, the globular and ſerous parts ſecede from each other; and theſe laſt run off by the common outlets, or fall upon improper places. Nature muſt now be wiſely aſſiſted, as ſafety depends upon a timely evacuation of the matter, ſo ſoon as the ſymptoms ſhew it to be formed. The rupture, therefore, of the abſceſſes is by all methods to be promoted: and what method more likely to effectuate it, with leſs pain and fatigue to the ſick, or greater proſpect of relief, than the motion and vomiting in ſailing. See hiſtory XIX.

Whether a conſumption is curable or not, need ſcarcely be made a matter of diſpute: a little obſervation will eaſily reconcile the different ſentiments on this head. That ſome do recover there is no doubt, and were it not that it might appear too ſanguine, I would venture to ſay farther, what has not been often granted, that numbers may be preſerved, or life prolonged at leaſt with eaſe. Not indeed by remedies moſt commonly in uſe: experience gives us daily too certain, and melancholy, proofs of their inefficacy. But by ſuch, and

ſuch

ſuch only perhaps, as through a groundleſs timidity, plain neglect, or an uſeleſs refinement in medicine, are become ſuſpected by many, or deſpiſed, and ſuffered to fall into a general diſuſe. At the ſame time, remedies of no real efficacy, if not hurtful, and, in compariſon, utterly inſignificant, have, in common preſcription, been multiplied to exceſs; with no other deſign, one would imagine, but merely to gratify the importunities of the ſick, or ſerve, it may be, a leſs generous purpoſe of the preſcriber himſelf. A more attentive review of the diſeaſe in its nature and cauſes, and of the methods of cure practiſed in it, and the ſmall ſucceſs of them, will, one time or another, I am perſuaded, ſhew to every one, not wholly led away by cuſtom and prejudice, that an alteration in practice is here neceſſary. However, when the utmoſt has been done, a conſumption will ſtill remain a very fatal malady. But if a few only of the many thouſands, who now muſt periſh irretrievably, can be reſcued from their fate, nothing being omitted that art hath ſuggeſted, the phyſician will have his due praiſe, he will diſplay more conſpicuouſly

ſpicuouſly the power of his art, nor ſhall the diſeaſe be deemed ſo much as hitherto, too juſtly it has been, the reproach of it.

Thus have I, with much plainneſs and freedom, for the matter required it, offered a few hints and conſiderations relating to the cure of a diſtemper, which, as it is greatly frequent, diſtinguiſhing neither age, ſex, nor condition, ſo the mortal havock cauſed every where by it among us, calls aloud for our greateſt ſkill and attention. After long reflection, and what I hope will be found a ſufficient experience of it, I am fully ſatisfied that ſea air is the moſt proper for the conſumptive to live in; and if the exerciſe at ſea is joined to it, medicine, I believe, cannot furniſh a more apt and powerful aſſiſtance, in the various circumſtances of a pulmonary conſumption; as it has all the effects of an internal alterative remedy, and will anſwer all the purpoſes of an external application; both which, it is evident, are, in the cure of it, alike carefully to be attended to.

There is nothing that is more wanted, and nothing would be of more uſe, than a rule by which we might be enabled to determine,

termine, with greater certainty, to what a cure is owing. And it is the more neceſſary, as a very indeterminate one has been ſometimes adopted, that if a diſeaſe is cured, no matter how it is cured. This maxim admitted, throws a general obſcurity into practice, tends, too often, on too ſlight grounds, to eſtabliſh a method, and will juſtify the continuance of every method and remedy propoſed by every author, if no better evidence of its utility is required, than that the ſick may have recovered in the uſe of it. Mere empiriciſm attempts to enquire no farther than preſent effects and appearances. That the greateſt advantage is to be derived from a diligent ſtudy of the juvantia and lædentia, will be readily owned; but it muſt be acknowledged, at the ſame time likewiſe, that, amidſt a variety and multiplicity of remedies, it is impoſſible to determine what does good or ill. To reduce medicine to a true ſimplicity, is to bring it to a greater certainty. Many remedies are handed down to us with ſuch aſſurances, and even aſſeverations of their ſucceſs, that the fond prejudice in favour of them muſt be imputed

puted to credulity, the want of due examination, or the vanity, ſo natural to us, of making a thing our own. For, many times, neither to reaſon nor experience, do they diſcover, on an impartial trial, ſuch excellencies as their authors have been pleaſed to attribute to them. While remedies of obſcure virtues, and ſmaller intrinſick worth, are every day multiplied and impoſed, according to cuſtom and fancy, or from the authority of a name, while we ſuffer them to uſurp ſo often the place of ſuch as are of real efficacy; medicine, as to the choice of remedies, muſt remain in a perplexing uncertainty; and every addition, far from being an uſeful acquiſition, will only increaſe the number, and leave us to fluctuate, more uncertain and perplexed, in a greater confuſion.

It is greatly therefore to be wiſhed, that more poſitive hiſtories were always given us of the operation and effects of medicines, in a number of experiments ſufficient to aſcertain their uſe and efficacy; and ſhew, in particular diſtempers, what is chiefly to be depended on. And here the good and bad effects of them are faithfully to be related,

lated, with the event in every caſe; by which only we can eſtimate the real value of a remedy. A few ſucceſsful caſes, ſelected from a much greater number of unſucceſsful ones, will not long ſecure the credit of the relation, or of a remedy. Nothing is to be ſuppreſſed, nor ſhould any thing be exaggerated. Every partial relation propagates an error, and leads into miſtakes of a dangerous tendency, aſſuredly hurtful, ſome time or other, to the ſick, and a diſcredit to the art. A vain conſumption of time in the uſe of remedies, very often no ways adequate, retards ſo much the cures, and the favourable opportunity for a cure being loſt, may altogether defeat it.

Not only is a thorough knowledge of remedies, as to their real virtues and efficacy, neceſſary, but in order to judge more certainly by what means the cure is effected, it intereſts us to be well acquainted with all the different ways a diſeaſe may be cured. This, beſides directing us ſometimes to a better method of cure, will ſerve, very much, to abate the too general preſumption of arrogating to ourſelves the merit of a cure, to which, perhaps, we have

have very little, if any thing at all, by our adminiſtrations contributed. It is nature always, to be ſure, that cures the diſtemper; but how often is it cured by nature without the leaſt intervention of art, by time, chance, changes of ſeaſons, former management, and adminiſtrations, and ſometimes by barely avoiding the cauſes of the diſeaſe?

Having mentioned chance, I ſhall give an inſtance of a cure in a very obſtinate illneſs, as agreeable as it was unexpected, and not altogether foreign to the preſent purpoſe. A lady, near the end of her pregnancy, had a ſevere fit of a colic, ſucceeded by a jaundice. This went off whilſt ſhe lay in, but ſoon returned, and continued four months, her health otherwiſe being little affected thereby. There was no pain, nor fulneſs, hardneſs, or weight, in the region of the liver; the ſtools were always white, and ſhe was coſtive. Nothing ſeemed to have any laſting effect to remove the diſorder, and the colour of her ſkin was growing faſt into a deeper yellow. Though, for the moſt part, ſhe rode, more or leſs, every day, I adviſed a journey. In

her return her horſe ſtumbling, an acute pain ſeized her on the right ſide of the belly, which crept ſlowly along, ſtill leſſening, toward the navel, and, in a few days, altogether went off. From this time the jaundice gradually abated, and ſhe recovered. The cauſe here, I preſume, was a ſtone obſtructing the common duct; the poſition of which was, by the ſudden ſhock and compreſſion, in ſtraining to recover herſelf, ſo altered, that it could now, by the exerciſe and ordinary action of the parts, be puſhed ſafely forward into the inteſtine. Without ſuch a powerful accident, the diſeaſe, probably, muſt have been, ſooner or later, mortal.

Agreeable to reaſon and the example of the ancients, I ſhall, in ſuch a caſe hereafter, make no ſcruple to adviſe ſailing, which in a jaundice and diſeaſes of the kidneys, they have recommended. The motion of the ſhip, and retching from the ſickneſs, are well adapted to aſſiſt in the expulſion of ſtones, gravel, or other matters, in the gall-bladder and kidneys, or their excretory paſſages. And herein we ſhall imitate nature in thoſe ſpontaneous vomitings which happen

happen in icteric and nephritic caſes, the efforts uſually employed by nature to expell more ſpeedily the extraneous offending ſubſtances.

I ſhall finiſh what I intended in theſe remarks on ſailing, as a remedy, with two or three hiſtories.

A gentlewoman, after a ſlow fever, fell into anomalous ſhakings, which increaſed into a high convulſive diſorder. The motions were ſo violent, and various, and univerſal, that, in times of greater ignorance, ſhe muſt have been looked upon as a proper ſubject of exorciſm, not of medicine. By proper methods they went off, and for a twelvemonth or more ſhe was intirely free from them. The return of the fever cauſed a return of the diſorder, which was again carried off by the ſame method. But from a third attack of the fever it became habitual, and would yield to no remedy. Bath was propoſed. It was, on many accounts, convenient for her to go by ſea, which I the rather encouraged, as it would be an experiment of what ſailing would do in ſuch a caſe. By a train of misfortunes ſhe was driven from place to

place, and ſuffered ſufficiently the hardſhips of a ſea life, the diſeaſe ſtill the ſame, or worſe; and when at Bath it grew to a greater height than ever. After drinking the water a few weeks only, as it was not judged proper for her, ſhe returned to her own country by land; and now, for a good many months, and at that ſeaſon in which ſhe uſually relapſed, the diſeaſe is ceaſed, though ſhe has daily ſome remote feelings of a diſpoſition to ſhakings.

A black, when fourteen years of age, from a fall, had a depreſſion made in his ſcull remaining ſtill, which rendered him a good while inſenſible. After ſome time he became epileptic for ſome years. The fits at firſt came monthly, without impairing his mind, being kept low by a ſpare dyet. But growing more frequent, he became liſtleſs, ſickly, and ſomewhat ſtupid. His maſter, being informed by a gentleman, who practiſed in Jamaica, that when their ſlaves had fits, a voyage was ſometimes obſerved to do ſervice, ſent him to ſea. He returned, after nine months, from Virginia, which was the voyage, in February 1756, and continued upwards of eighteen

eighteen months free from his diſtemper, till lately, that he has had a ſlight fit, but is at preſent a ſtrong, active, ſenſible fellow.

A gentleman, when young, was ſeveral years afflicted with the heart-burn, for which he uſed all the common remedies, and conſulted ſome of greateſt note, but without benefit; for though he was better and worſe at times, the diſeaſe, even when leaſt troubleſome, continued ſtill greatly to diſtreſs him. His affairs carrying him to ſea, after being three days on board, it blew hard, which gave him ſome ſlight retchings. Since that, he has not had the ſmalleſt return of his illneſs.

In a late conſtitution of fevers I have made ſome farther trials of bathing, and with ſuch ſucceſs as is a ſufficient encouragement, in future trials, to extend it to a more general uſe in fevers of different kinds, eſpecially having the approbation of thoſe whoſe judgment I ought to regard, who have readily communicated to me their ſentiments of it as a rational and uſeful practice.

Per-

Perhaps there is no remedy that, in the uſe of it, carries along with it more the appearance of ſeverity and danger, than bathing in a fever; and yet there is ſcarcely any remedy that is really more ſafe, and eaſily ſuſtained. In all firſt attempts obſtacles will occur; but the chief objection to bathing will not, I ſuſpect, ariſe merely from the general averſion to new and uncommon practices. Fear, I own, and a regard to reputation, prevailed long with myſelf; others may be determined not to give into it from other motives. Neceſſity at laſt prompted me, under an affecting perſuaſion, at the ſame time, that, while this remained untried, the deſpairing patient was not allowed every fair chance for life. The unqueſtionable benefit which, in moſt trials of it, accrued from it, ſoon diſſipated the common prejudices againſt it. It was no longer dreaded as a precarious or dangerous experiment, but, with a ſort of wonder, regarded as a more certain and agreeable means of ſafety and relief, in thoſe aggravated circumſtances of fevers which ſo often elude our greateſt induſtry

and

and greateſt ſkill. And when other remedies are found to avail little, or may not be at hand, and the time to produce their effect is ſhort, it is no ſmall comfort and ſecurity to the ſick, and thoſe about them, to know that there is yet one in reſerve, from which, in moſt caſes, good effects may, with ſome aſſurance, be expected. It is no ſmall advantage too that it is eaſily procured, being at hand every where, and all have equally acceſs to it.

The more general and immediate effects of bathing are, that it compoſes the ſick, and procures ſleep under delirium, and continual toſſing from the want of it. Or, if they lie heavily oppreſſed from too much ſleep, it diſpoſes to be more wakeful. It cools the feveriſh heat when they are inflamed, and parched through an exceſs of it, and raiſes a greater degree of warmth and ſpirits in thoſe who are languid and cold. It, moreover, as was formerly remarked, reſtrains the inordinate flow of unnatural ſweats, cauſed by a general ſpaſm and the feveriſh ſtruggle, and promotes the kindly ſalutary breathings by the ſkin when

theſe

theſe are wanting. This contrariety will not appear ſtrange to thoſe who know that medicines are poſſeſſed only of relative powers; and that, according to the temperament, the preſent diſpoſition of the humours and condition of the parts, the ſame remedy will, in different ſubjects, produce various and very oppoſite effects. Nor was it unobſerved by the ancients. Bathing, they tell us, is proper in fevers whether hot or cold; and farther take notice, as a ſingular circumſtance in it, that it allays thirſt in thoſe that are dry, and cauſes it to ſuch who before were not dry. It may be reckoned one conſtant effect of it too, that the ſick recover ſooner; and, to forward recovery, I direct it, even after a criſis, and when the delirium is pretty much gone, to relieve under reſtleſſneſs, and the fatigue ariſing from heat, and dryneſs of the ſkin, and lying ſo long a-bed. They find now ſo much pleaſure and refreſhment from it, that they have aſked ſometimes to be put into the bath again, or to continue longer in it. In one lately it cauſed a large flux of urine.

I am not yet able to determine, whether bathing contributes any ways to haſten a criſis. Nor am I ſo much prejudiced as to imagine, that it will always produce immediately thoſe great and more ſenſible changes that have ſometimes been obſerved, or may be expected from it. However, we may, I think, be aſſured that, applied to in time, it is ſtill working ſlowly its effect, and by ſupporting the natural ſtrength, reſtraining the exceſs of febrile, or nervous ſymptoms, and waſting inſenſibly the matter of the fever, diſpoſes gradually to a calm, healthful criſis. And here no undue force is put upon nature, by ſudden and untimely commotions or evacuations; which, when weak and exhauſted, the ſick are unable to bear, and may be wholly overcome by. On the contrary, they are always evidently reſtored by it.

When therefore, from the appearance of certain ſymptoms too early, there is cauſe to apprehend a greater degree of malignity and danger, bathing may be very uſefully adviſed from the eighth or ninth

day to the fourteenth, or beyond it. Under the continued uſe of it, in this increaſing ſtate, they ſuffer far leſs the vehemence of the fever, and conſequently are carried, more eaſily and ſafely, through a very dangerous, and frequently a mortal, period of it.

FINIS.

MVSEVM BRITAN NICVM